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AN ECONOMIC HISTORY OF ROME

TO THE END OF THE REPUBLIC

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TO
THE GENERATIONS OF STUDENTS
AT
THE AMERICAN ACADEMY IN ROME
WHO HAVE SOUGHT THE SPIRIT OF
ROMAN INSTITUTIONS
ON
ROMAN SOIL

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PREFACE

The reasons why no economic history of Rome has hitherto been available may perhaps not be apparent to those who have not attempted to write one. The lack of easily interpreted data has indeed made the task almost impossible. Roman history which received little attention until Rome had become a world power was thereafter for two centuries written chiefly by public men who had devoted their lives to politics and diplomacy. These men naturally had no personal interest in commerce and manufacture; indeed they were members of a class that held traders and manufacturers in slight esteem. As a consequence their books, from which of course Livy drew his account, contained only casual remarks regarding the economic conditions of their nation. Archaeology has recently provided important material, especially for the study of the early period, but it is material that cannot always be precisely interpreted. The inscriptions dating from the Republican period are brief, and unfortunately temple accounts, which have provided many facts for the reconstruction of Greek economic history, were at Rome kept on perishable material. The papyri that have recently been found in large quantities in Egypt provide data in the main only for that kingdom, the economic mechanism of which was so peculiar that the historian cannot apply the inferences drawn from them to conditions prevailing elsewhere. It is for such reasons

as these that students of antiquity have hesitated to attempt an account of Rome's economic development, and that the reader cannot now be supplied with adequate tables of prices, wages, exports, imports, and the like. If the definite facts recorded in the present volume seem not to be commensurate with the space required for the record, the cause lies to some extent at least in the frequent necessity of interpreting the ambiguous material available before using it for historical purposes.

It was my intention to continue this history through the Empire, but new work that cannot be avoided has made this impossible. The book is, however, not a fragment. The Republic shaped most of the ideas and institutions which we associate with the word Rome; the Empire was largely a conglomeration of non-Italic peoples that never quite coalesced and that were directed more or less mechanically by a government which tried with only partial success to impose upon them the institutions created by the Republic. The new ideas that originated in the Empire were in general not of Latin origin nor in accord with the spirit of the old Republic. It is desirable, therefore, to consider the Republic as a unit, and not to confuse its practices with those of the Empire. Where, however, light could be thrown upon the earlier history by reference to methods that demonstrably continued into the Empire I have not hesitated to draw illustrative material from the later period, and have in fact let the story of several chapters run far into the second century of our era for the purpose of reaching the logical sequel of conditions originating in the Republic.

I wish to thank the editors of the *American Historical Review,* the *American Economic Review, Classical Philology, The Military Historian and Economist,* and the *Classical Journal* for permitting me to use certain paragraphs and summaries of studies which have been printed in their journals, and especially to express my gratitude to my colleague, Professor Wilfred Pirt Mustard, for his kindness in reading and bettering the manuscript.

T. F.

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CHAPTER I

Agriculture in Early Latium

Italy's wealth in ancient times as in modern lay in her food-producing soil. Gold was never found in the peninsula, and but little silver. Iron and copper were mined only in a narrow strip of Etruria, too circumscribed to entice many Romans into industries. The commerce of the seas was developed and held by people less well endowed with productive land, races compelled to trade if they were to survive. Agriculture was therefore Italy's industry, in particular the cultivation of the Western littoral composed of the ejecta of the many volcanoes between central Etruria and Naples, and of the deep alluvial deposits of the Po valley. The hardy farmers of the Roman Campagna it was who organized the irresistible legions that united Italy and through the united strength of Italy the Mediterranean world, and it was the submersion of this stock of farmers that hastened the end of ancient civilization.

The Latin plain in its present conformation is very recent, so recent that the last masses of volcanic ash probably post-date the pyramids of Egypt. The process of formation continued from long before the glacial periods and all through them.[1] More than fifty craters, from which the ash and lava poured, can still be found

[1] A. Verri, *Origine e Trasformazione della Campagna*, 1911. For an analysis of the soil see *Boll. Soc. Geol. Ital.* 1918, 29 ff.

within twenty-five miles of the imperial city. Long periods of tranquility intervened when jungles grew up over the temporary surface, only to be buried under a new mass of ashes. The deep cuttings of the railways that run out of the eastern gates of Rome expose repeated layers of black and yellow soil lying between thick strata of tufa and ash; they mark the jungles of former intervals of rest. The present surface is not old. The mouth of the Tiber has apparently silted in as much alluvium since Ostia lay upon the seashore in Sulla's day as the river carried down between the last great eruptions and Ostia's foundation. Though the Sabine hills immediately behind this plain show numerous sites of habitation several millennia old—some being the homes of savages of the palaeolithic age—and though there are traces throughout the peninsula of the earliest Indo-European peoples of the Terramara civilization[2] (the men who in the third millennium introduced the use of copper), the oldest graves of the Forum,[3] the Palatine, and of Grottaferrata cannot with certainty be placed earlier than the iron age, perhaps not more than a thousand years before Cicero. Archaeologists have doubted the accuracy of the reports[4] published by the excavators who a century ago claimed that the burial urns uncovered below Castel Gandolfo were found under undisturbed layers of volcanic ash, but Pinza has proved the reports accurate, and his own theory that Alba Longa was buried in the debris of an Alban eruption does not entirely lack plausibility.

[2] Peet, *The Stone and Bronze Ages in Italy.*

[3] Pinza, *Monumenti Antichi,* XV.

[4] Pinza, *Etnologia Antica Toscano-Laziale,* pp. 33–74.

The Latin plain is then of very recent date, and human cultivation of it of still more recent. It is well known that the volcanic ash that falls from Vesuvius is rich in phosphates and potash and that a moderate admixture of it in the soil acts as an excellent fertilizer. In fact, the Campanian farmer living in the shadow of Vesuvius is not averse to an occasional eruption if only the volcano behaves with moderation. The later ash-strata of the Alban volcanoes had an abundance of these same constituents, though a large percentage of the original elements has leached out with time. Needless to say, however, the ash alone did not lend itself to cultivation at once, since grain needs an abundance of nitrogenous matter, and a solider soil than the ash at first provided. Before men could inhabit the Latin plain we must posit a period of wild growth and the invasion of jungle plants and forests which could create a sufficiently thick humus for agricultural purposes. Such forests did invade the plain. Not only do all the authors preserve the traditions of forests and sacred groves that are mentioned in the tales of early kings, but Theophrastus[5] still knew of Latium as a source of timber as late as the third century: "The land of the Latins is well watered, and the plains bear the laurel and myrtle and remarkable beech trees. Trunks are found that singly suffice for the keel beams of the great Tyrrhenian ships. Fir and pine grow upon the hills. The Circaean promontory is thickly overgrown with oaks, laurels, and myrtle." It is interesting to find

[5] Theophrastus, *Hist. Plant.* V, 8; cf. Pais, *Storia Critica di Roma*, I, 627.

that the beech then grew in the Latin plains, for now that the Campagna is parched and treeless it has withdrawn to the hills, if not to the mountains.

With this growth of timber from a subsoil which had many excellent qualities, a very rich soil was being formed for farming when once the Alban volcanoes should cease pouring out the flames that kept the hill-peoples back in fear. There can be little doubt that the region was far from being semi-arid then as it is now. To-day the grass parches brown in June, not to revive again till near October, and the wheat is hurried to a premature harvest in the middle of June. But Varro sets July down as the month of harvest in his day, and summer rains are frequently mentioned in the classical authors. It would be hazardous to assume a theory of "climatic pulses" by way of explanation of this difference, and it is doubtful whether a mere two thousand years in the long recession of the glacial area could cause a perceptible change in temperature. The explanation of the change is perhaps to be found in the almost complete deforestation of Latium and the mountain behind. There can be little doubt that when the Sabine ridge from Praeneste to Monte Gennaro and the whole Volscian range were a thick forest instead of the parched white rocks that now stand out, the cool mountains when struck by the humid sirocco caused condensation and precipitation over the plain. In those days moreover, the areas of forests still standing on the mountain sides and plains retained the water long and afforded a lasting subsoil supply and an abundance of nightly dewfalls which do

not now exist when the last rains of spring leap off the bare rocks and flow away at once in torrents.

When, therefore, the early settlers pushed down into the Campagna and burned out "clearings" for farming (indeed the Terramara folk had then practiced systematic agriculture in the Po valley for many centuries), they found a soil remarkably fertile, though not yet very deep, and a warmth and humidity that make the harvest rich. As was to be expected from such conditions, the population in time grew dense. There is nothing improbable in the tradition of the fifty villages that Pliny has preserved. The treasures now being gathered into the museum of the Villa Giulia from the ruins of sixth century Ardea, Satricum, Lanuvium, Gabii, Praeneste, Nemi, Velitrae, Norba, and Signia, speak of an era of prosperity that no one dared imagine a few years ago. The ancient lords of these cities, which became malarial wastes before Cicero's day, decked themselves and their homes in the gold and precious stones of all the lands from the Baltic Sea to the Mesopotamian valley. Yet the wealth which made possible all this display did not spring from Latin industry or from commerce directed by Latins, if we may trust the archaeological evidence available. It was the produce of a rich soil cultivated with unusual intensity which paid for it, and kept alive a thick population such as would probably compare with the swarming tenantry of the Po valley of to-day.

There are numerous relics from that remarkable agricultural period still to be found in Latium, traces of drains, tunnels, and dams that are all too little known.

The modern Italian farmer who hardly finds his land worth the merest labor of planting and harvesting fails to see how in a former day the owners could have secured returns for such enormous expenditure of labor. A convenient place to study the intricate draining system of that time is the district below Velitrae. Here as De La Blanchère[6] discovered some forty years ago the ground is honeycombed with an elaborate system of tunnels running down the slopes of the hills toward the Pontine marshes, *cuniculi* as he calls them, about 3 by 1½ feet, cut in the tufa a few feet below the surface and usually along the sides of the numerous ravines. De La Blanchère was unfortunately misled by the then prevailing "miasmatic" theory of malaria into believing that these tunnels were cut to drain the soil of pest waters. But they occur only on the slopes where the land drains all too readily without aid; they do not touch the stagnant Pontine marshes below. However, he also suggested as a possible theory what seems indeed to be the

[6] De La Blanchère, in *Mél. d'archeol. et d'hist.* 1882, also art. *Cuniculus,* in *Daremberg-Saglio.* He has probably overemphasized the use of these canals in draining marshes and subsoil moisture, and seems also to have included in his discussions some tunnels that are apparently sewage drains belonging to later villas near Rome. The *cuniculi* of the city are sometimes erroneously brought into the discussion of drains. Many of these were doubtless secret passage-ways dug to afford avenues of escape or retreat during the proscriptions of the civil wars and during slave uprisings. Antistius Labeo seems to have a reference to the drainage *cuniculus* in the words: fossa vetus—nec memorem extare quando facta est, Digest 39, 3, 2, 1. *Cuniculi* have been found as far north as Bieda, see *Röm. Mitt.* 1915, 185.

true explanation. They were apparently cut at a time of such overpopulation that every foot of arable ground must be saved for cultivation. By diverting the rain waters from the eroding mountain gullies into underground channels the farmers not only checked a large part of the ordinary erosion of the hillside farms but also saved the space usually sacrificed to the torrent-bed. It would be difficult to find another place where labor has been so lavishly expended to preserve the arable soil from erosion. The ground must have been very valuable, and the population in great need to justify such heroic measures for the insurance of the annual harvest. Similar systems are found in the valleys north of Veii and were probably built under similar conditions. Indeed, the remarkable cutting seventy-five yards long at Ponte Sodo[7] near the citadel rock of Veii through which the Fosso di Formello has ever since flowed seems to have been undertaken to save a few acres of the circling river bed for cultivation. Similarly the emissarium of the Alban lake, 1,300 yards long and 7 to 10 feet high, was cut through solid rock to save a few hundred acres of arable soil on the sloping edge within the crater. Even with the

[7] Since Roman Veii stood near this Ponte Sodo (Solidum), it is probably this tunnel that later tradition assigned to the sappers and miners of Camillus' army. The stories of mining operations at the siege of Veii may account for the strange tales that connected the emissarium of Lake Albanus with the Veian siege (Livy, V, 15). The Romans do not mention the tunnel that drains Lake Nemi, though it is twice as long as the Alban one. It apparently was cut before the temple of Diana became very important. The Valle Aricciana and the crater lake on the via Praenestina were also drained at an early date.

tools of modern engineers, that task would not now be considered a paying investment. Finally let the student of intensive tillage take a morning walk from Marcellina up Monte Gennaro through the steep ravine of Scarpellata. It is usually dry, but after a heavy rain the water pours down in torrents, carrying off what little soil may tend to accumulate. To save small alluvial patches in the course of this ravine the ancient farmers built elaborate dams of finely trimmed polygonal masonry that still withstand the torrents. The masonry is largely made of huge blocks weighing half a ton each and is in no wise inferior to the magnificent polygonal masonry of Segni's town walls. And yet one of these dams could hardly save more than half an acre of arable soil.

It is impossible after surveying such elaborate undertakings to avoid the conclusion that Latium in the sixth century was cultivated with an intensity that has seldom been equalled anywhere. When, furthermore, we consider that the tools of that period were the spade and the mattock, we may be sure that each man's allotment was very small, doubtless no more than the two jugera that Varro assures us sufficed for the support of the ancient Latin family. It follows that Latium supported a very densely settled population. With these facts in view the historian can understand whence came the armies that overran the limits of Latium and overwhelmed all obstruction when once they were set in motion, why Veii fell, why the burning of Rome was so quickly repaired, and why Campania called all the way to Rome for aid when threatened by the Samnites. It is very probable

that when the soil began to show signs of exhaustion under this severe strain and an incapacity to feed the population which is proved by the desperate methods mentioned above, the growing generations found it necessary to seek more room, and that the expansion of the Latin tribe dates from this condition.

Of the social organization of these early Latins of the sixth century we have of course no contemporaneous description; the inconsistent conjectures of Roman writers who lived many centuries later, based as they generally were upon institutions that had come into being through the intervening revolutions, provide but uncertain material for history. The safest course is to rely as far as possible upon archaeology, upon the fragments of the twelve tables that were written down in the middle of the fifth century, and upon whatever inferences can be drawn from the earliest political institutions and social practices that are vouched for by trustworthy writers.

Some deductions for instance may be made from the presence of the extensive agricultural undertakings already mentioned. These could not have been organized and carried through by small land holders, for the tunnels ran beneath hundreds of individual plots; nor could the primitive democratic communities which we sometimes posit for Latium have provided the initiative and sustained efforts that they imply. It is highly probable that these drainage tunnels and dams were undertaken by landlords who owned extensive tracts and who could command and direct the labor of numerous tenants. In brief they suggest that a villa system not unlike the

manorial system of England of the twelfth century pervaded Latium at the time. And this inference accords with the evidence available from other sources.

Such a system would explain the Roman institution of clientship as a survival of the personal relationship which in time established itself between the lord and his tenant or serf. The client of those early days had some duties that remind us strikingly of services imposed upon the medieval villein. He was, for instance, bound to make contributions for the dowry of his lord's daughter[8] and toward the ransom of his lord if the latter was captured in war, and also to go to battle with his lord. It would also explain the miserable political and social condition of the plebeians at the beginning of historical times. To be sure the earliest republican laws and the twelve tables represent the plebeian as a citizen capable of owning property. But he had little else and occupied the civil position of one who had but recently emerged from a lower status. He had, for instance, no right to hold a magistracy in the state, he had lost the privilege of consulting the gods officially, a plebeian could not marry anyone of patrician blood for fear that children of such a union might inherit patrician rights, and since the patrician group in the Senate had the power of veto, his vote had less than full value.

The villa furthermore was recognized in the earliest law, which indeed calls it the *hortus,* or the enclosure, while a manorial system with very small copyholds for the peasants seems to be recognized when the garden plot

[8] Dion. Halic. *Antiq.* II, 10, 1.

of two jugera (one and one half acres) is called an inheritance, *heredium*.[9] Perhaps also we may find a survival of the open field system in the "strips,"[10] in which the land was assigned in Rome's two earliest citizen colonies, Ostia and Antium.

Whether the peasant of the Latin village of the sixth century had actually fallen into real bondage[11] as had the helots of Sparta, Thessaly, and Crete we cannot now determine, but it seems clear at least that his condition was in no way superior to that of the villein of the better class of manors before the time of the Black Death. The numerous villages of such peasants clustering about the lord's villas and the community temple must in many respects have resembled in form and in social organization the medieval manorial villas. An idea of the social contrast between the classes may be gathered by comparing the elaborate jewelry of the princely tombs at Satricum

[9] *Leges XII Tabularum,* VII, 3 (Bruns, *Fontes*); Varro, I, 10, 2. This is supported by the fact that the surveyors in plotting out the land for colonies conserved a two-acre measure in the "centuriation," and that early colonies granted freeholds of very small plots. At Tarracina (327 B.C.) only two jugera were given; later colonists were given somewhat larger allotments (2½, 3, 4 jugera) and finally in the Gracchan days thirty jugera. Two jugera (about 1½ acres) could hardly have sufficed for the needs of a family. Perhaps an additional portion was assigned as a leasehold from the municipal land. See Kornemann, Pauly-Wissowa, IV, 575.

[10] *Lacineis adsignatus, Liber colon.* (Ed. Rud.) 229, 18, for Antium; 236, 7, for Ostia.

[11] This is the view of Neumann, *Bauernbefreiung;* cf. E. Meyer, art. *Plebs, Conrads Handwörterbuch;* Botsford, *Roman Assemblies,* pp. 16–65.

with the meager furniture of the peasant dugout found near by.[12]

It would be useless to raise once more the old questions regarding a possible anterior "community ownership" and the beginnings of property rights at Rome; nor is there any reason to expect conclusive evidence on these points. The supposed traces of communism[13] at Rome are few. The community pastures and wastes near the Latin cities may or may not be survivals of more extended communism: a study of medieval institutions has revealed that township-meadows have frequently been acquired in a late day. Mommsen indeed found it significant that according to the oldest code a man's property reverted to his fellow clansmen if he died intestate and without heirs,[14] but this again may be a relatively late invention of the lawmakers. However that may be, the laws of private property had developed long and far before the fifth century when the twelve tables[15] were drawn up. Since the Terremare[16] settlements of the Po valley reveal that the ancestors of the Romans were orderly agriculturists more than a millennium before these laws were written, it is highly probable that the Latin people respected property rights before they settled the plains about Rome.

[12] See *Monumenti Antichi,* XV, p. 83, and Della Seta, *Museo di Villa Giulia,* I.

[13] Mommsen, *Röm. Staatsr.* III, p. 23; Pöhlmann, *Gesch. des antik. Kommunismus,* II, 443; Vinogradoff, *Growth of the Manor.*

[14] *Leges XII Tab.* V, 3.

[15] *Ibid.* V, 3, *Uti legassit super pecunia tutelave suae rei, ita jus esto.*

[16] Peet, *The Stone and Bronze Ages in Italy.*

CHAPTER II

The Early Trade of Latium and Etruria

A full millennium at least before Rome's foundation, as the Egyptian records of the twelfth dynasty[1] show, men traded and thieved on the high-seas of the Mediterranean. Later the Amarna tablets reveal Lycian pirates preying upon Egyptian and Cypriote merchants; and Phoenician traders resorted to Spain for British tin before the days of Hiram. It was probably in the eighth century that the Tyrsenian immigrants—who mingling with the Umbrians of Italy fathered the great Etruscan race[2]—came overseas from the Asia Minor coast. North of the Tiber the adventurers seized several towns from Caere to Vulci. The old cemetery at Tarquinii with its almost complete change from Villanovan urn-burial[3] to a new type of trench grave is a striking proof of how sudden was the invasion in southern Etruria. In the eighth and seventh centuries the new people, now gen-

[1] Breasted, *History of Egypt,* p. 188; Knudtzon, *Die El Amarna Tafeln,* no. 38. In a forthcoming dissertation, which has in part been at my disposal, Miss L. E. W. Adams will discuss the early commerce of Latium.

[2] Körte, *art. Etrusker,* Pauly-Wissowa. Schulze, *Lat. Eigennamen* has called attention to the great number of Etruscan names that consist of Italic roots and Etruscan suffixes. The explanation lies of course in a thoroughgoing race-mixture.

[3] Karo, *Bull. Paletn. Ital.* 1898, 145 ff.; *Notizie degli Scavi,* 1907, 350.

erously mingled with Italian subjects, as their personal names and the religious cults show, spread quickly, first over the iron and copper-bearing region of northern Tuscany, then beyond to the Po valley and also south through the Trerus valley into Campania. Latium indeed escaped for a long time—too thickly settled, it would seem, for easy conquest—but Praeneste, the Latin fort-town on the Sabine slope, was seized to guard the land route between Etruria and the Campanian outposts of the south.

Not long after the arrival of these first Orientals, began the westward flow of Greek[4] colonists. From Epirus and the western Peloponnese came numberless shiploads of landseekers who established the prosperous cities of South Italy. Sparta followed with a colony at Tarentum. About the middle of the eighth century Chalcis of Euboea settled far off Cumae on the bay of Naples, a city that soon became the schoolmistress of central Italy, and then both sides of the Sicilian straits, founding cities at Naxos, Zancle, and Rhegium. Chalcis, herself situated on a narrow strait, had naturally acquired an instinctive appreciation of the commercial value of such a position. Further north the Greeks discovered that the Latin and Etruscan tribes were already in complete possession, as the Etruscans in their turn encountered the Greeks blocking their progress coastwards when they presently arrived in Campania. Then Corinth, already a trading and manufacturing town that had planted trading posts

[4] Beloch, *Griechische Gesch*[2]. I, 1, 237 ff.; A. Reinach, *L'hellénisation du monde antique.*

on the Adriatic islands, sent, about 735 B.C., a flourishing colony to Syracuse.

Although the Ionian Greeks of Asia Minor, and especially the progressive city of Miletus, had reaped large profits in Thracian and Pontic trade, the Rhodians turned to the southern coast of Sicily—Gela and Acragas—a century later, and about 600 B.C. the Phocaeans founded Marseilles near the Rhone to which their hardy ships had long resorted. Even though the Latins did not for a long time come into direct contact with these various Greek colonies, their civilization soon felt the influences of the Aegean arts and crafts which these colonists brought westward from their former homes.

The Etruscan neighbors of Latium failed at first to keep in touch with the Asiatic coast from which they had come. Perhaps the whole nation had migrated, leaving no kinsfolk behind with whom to communicate. To be sure, Mesopotamian ideas are plentiful in the religious cults and astrological lore of the Etruscans, but material proofs of an Eastern commerce, except in such meager trifles as the Phoenicians had brought to the West even before the Etruscan migration, are rare for the earliest period. It was not long however before some of the Etruscan princes grew wealthy on the serf-tilled plantations of a soil still very productive, and then the Eastern sea-farers sought them out. The Phoenician[5] merchants in particular who were losing to the Ionian Greeks the

[5] Poulsen, *Der Orient und die Frühgriechische Kunst,* 116 ff.; Kahrstedt, *Phoenikischer Handel,* Klio, 1912, 461 ff.; Curtis, *Memoirs of the American Academy in Rome,* vol. III.

profitable Aegean markets held since Homeric days now sought compensation in the west, in Spain, Tuscany, and Libya. The tombs of Caere and Praeneste—only twenty miles from Rome—that have disclosed the richest products of this Phoenician trade are now generally dated somewhat after 700 B.C. For the story of early commerce the most significant objects discovered in them are the silver and gilded bowls wrought apparently by Phoenician craftsmen with designs drawn from Hittite, Egyptian, and Mesopotamian patterns; the carved ivory plates such as Tyrian artisans are said to have made for the intarsia work of Solomon's temple; the painted ostrich eggs that appear wherever Phoenician traders resorted, and the ubiquitous Egyptian glass beads and scarab-amulets, with plentiful Phoenician imitations of both.

That moreover Greek traders also came up the coast before the end of the eighth century is shown by the presence of proto-Corinthian vases in these same tombs.[6] The first example of this Greek ware may have come by way of Cumae from Chalcis, but before long the importations were augmented by Corinthian sea-farers who carried the wares of their own city to their colony of Syracuse, whence they quickly found their way northward. Corinth indeed, borrowing ideas and apparently also artisans from Tyre, and taking advantage of the disfavor into which Phoenician traders were falling in

[6] Lorimer, *The Fabrics called Proto-Corinthian,* Jour. Hell. Stud. 1912, 326 ff.; Perrot and Chipiez, IX, 574 ff.; Gabrici, *Cuma,* Monumenti Antichi, XXII, 343 ff.; Helbig, *Die Italiker in d. Poebene,* 14; Prinz, *Klio,* Beiheft VII.

Greek lands, now undertook to capture the Greek market in Tyrian fabrics, perfumes and ointments, and made as containers for the latter those delicate earthenware bottles that have become the archaeologists' criteria of seventh century chronology. Corinth's position on the gulf gave her a great advantage in the new western trade, and excavations on the sites of Syracuse, Cumae and the Etruscan cities of Caere and Tarquinii prove that she knew how to profit by it.

During all this time Rome remained a group of farm villages. The Latian soil was indeed rich and breeding a dense population, a tribe so strong that the Etruscans could not make their way across the Tiber southward except by a road that hugged the rocky slopes of the Sabine mountains. The busy farmers of the plain seem all the while to have cut themselves off from contact with the Phoenician traders who so constantly bartered with the neighboring cities of Etruria. The very name "Poeni" the Romans got from Syracusan traders who succeeded the Phoenicians, and the Latin words for things of commerce and parts of ships they learned from sea-farers of Syracuse and Cumae. Even the earliest Cumaean trade, so well attested by the imported ware of Corneto, seems to have found no favor whatever in Latium.[7] On the site of Rome nothing has yet been dis-

[7] Gabrici, op. cit., points out that Cumaean ware went to the Etruscan cities north of the Tiber in great quantities for a long time without entering Latium. It would, therefore, seem that Latian culture did not keep pace with Etruria in the seventh century. Satricum, however, seems to have been touched by the

covered corresponding to the rich stores of gold, silver, amber and ivory, so abundant in neighboring sites above the river. A few fragments of early proto-Corinthian ware have indeed been unearthed, but this pottery was far from costly, and such trifles may well have been bought by the villagers of the seven hills from traders who used the directest road from Caere to Praeneste and Campania.

With the passing of the seventh century many important events changed the course of Italian commerce. Phoenician[8] trade diminished rapidly, partly because of Assyrian pressure in Syria, partly because of the growth of Greek trade stimulated and supported by the widely scattered colonies, partly, it may be, because Syracuse, now engaged in commerce, could use her commanding position below the Sicilian straits to hinder her rivals—and the enmity between the Syracusans and the Phoenicians had deep roots. At any rate the Latin language shows clearly the influence of contact with the Syracusans between the periods of Phoenician and Etruscan ascendency, that is, apparently, near the close of the seventh century; and the excavations of Cumae have revealed the existence of close communications between that city and Syracuse at this same period.

It was also about the end of the seventh century that the Etruscan armies succeeded at last in overwhelming Latium and thus decisively connecting Campania with Etruria. Here and there princes took possession of the

Greek traders, probably because Satricum was the port of entry for goods consigned to Praeneste, already in Etruscan hands.

[8] Beloch, *Griech. Gesch*[2]. I, ii, 249.

villages and, it would seem, assumed ownership of the land. At Rome the separate villages of the Palatine, Esquiline, and Quirinal hills were organized into one city about which a strong stone wall was built.[9] The city came in time to be the seat of an Etruscan sovereign who ruled over all the lords of Latium. Palaces were built for the kings, and temples to the vague spirits that were now identified with gods which the Etruscans had shaped out of Italic, Greek, and Oriental syncretisms. Labor was imported to adorn the rapidly growing city, and a harbor[10] was built at the mouth of the Tiber in order to invite Etruscan and Greek sea-farers.

Still it is doubtful whether even then Rome actually became an important center for maritime trade. The sea-going craft of that day[11] relied largely upon sails and were too poorly manned to pull cargoes against a stiff river current such as the Tiber carried; the skippers moreover needed to beach their ships and carry their wares to the market place, and bargain in person. Far more desirable for that kind of trade was a convenient sand-bar such as lay below Caere and Tarquinii or a small and peaceful river-mouth such as Satricum[12] possessed in the Astura river or Ardea in the Incastro and the Numicus. Rome's early growth probably owed less to her position with reference to sea-trade than to her command of the Tiber barrier at the point where

[9] *Notes on the Servian Wall.* Am. Jour. Arch. 1918, 175 ff.

[10] *Rome's First Coinage,* Class. Phil. 1919, 314.

[11] Huvelin, *Mercatura,* Daremberg-Saglio.

[12] Strabo, V, 2, somewhat to our surprise calls the mouth of the Astura a useful roadstead even in his day.

Etruscan land-roads from Tarquinii, Caere and Veii most conveniently crossed for Tibur, Praeneste, the Campanian road of the Trerus valley, and for the Latin cities of Tusculum, Lanuvium, Velitrae, Norba, Ardea, Satricum and Tarracina.

Nevertheless Rome and the whole of Latium were kept in close touch with Mediterranean commerce throughout the century of Etruscan occupation. Although the Latins succeeded in preserving their language and the essentials of their democratic ideals against the day of liberation, this period was one of profound cultural significance. Everywhere farm villages were transformed into cities where Punic and Sicilian and Massiliot traders hawked their wares in the market-places and where Phocaean and Corinthian artists and craftsmen found employment in the adornment of temples, palaces, and tombs.[13]

It was also about 600 B.C. that the Phocaeans of Asia Minor, outclassed in the Pontic trade by Milesians, settled Marseilles in order to profit from trade with the western Celts and Iberians. This was an event of prime importance for Italy since it assured in the passing Phocaean commerce a steady communication with the progressive and art-loving Ionians of Asia. It was doubtless the tales that these skippers brought home regarding opportunities in the luxurious cities of the West that induced artists and craftsmen in large numbers to

[13] Della Seta, *Museo di Villa Giulia*, 1918. Mrs. Arthur Strong, *Jour. Rom. Stud.* 1914, 160 ff. The immigration of Ionians was doubtless strongest in the middle of the sixth century when the Persians subdued the Ionian cities; Herod. I, 164.

try their fortunes in Italy. But this colony brought new resources to Italy. Entering into competition with the Phoenician sea-traders the Massiliots opened up a new route through Gaul for the acquisition of British tin which the bronze industry of the Italian cities must have. They also brought down iron from German and Spanish mines, and raw products, like wool and hides, for the industrial cities. Finally, the increased use of amber ornaments in Etruscan cities at this time is a proof of how extensively the new colony quickened the trade of the West as far off as the Baltic sea.

There is also noticeable toward the beginning of the sixth century a striking increase at Etruscan sites in the amount of Corinthian ware and of native ware made on Corinthian models.[14] It has been plausibly suggested that the reason for this lay in the political upheavals at Corinth which (about 583) drove many prominent men with their clients into exile. Some of these exiles seem to have found a refuge in Tuscany, where they engaged in their former pursuits or taught others the arts they knew. The Roman legend of Demaratus, the Corinthian whose son by an Etruscan mother became the powerful King Tarquin of Rome, is by no means improbable. The Emperor Claudius who later referred to the story vouched for its existence in very old Etruscan records.[15]

Finally, the student of early Italian commerce will find in Naucratis[16] at the Nile-mouth an interesting indi-

[14] Perrot, IX, 628.

[15] Körte, *Jahrb. Arch. Inst.* 1897, 57.

[16] Prinz, *Funde aus Naukratis,* Klio, Beiheft VII; Herodotus, II, 178.

cator of the trade passing between the East and the West. This "ancient Shanghai," as it has aptly been called, was an industrial and trading post which the usually exclusive Egyptians permitted the Ionian trading cities to found in their land. Here there grew up vigorous factories that sent out not only wares made in the latest Ionian fashions but also articles of Egyptian cults and personal adornment. The products of this peculiar art, found in abundance in Italy, are therefore proof of communication with such cities as Rhodes, Miletus, Clazomenae and Phocaea which shared in the industries of Naukratis, especially since they are found in conjunction with artistic objects that closely resemble the works of art discovered near these very cities of Asia.

There is then abundant evidence of the extensive foreign influence which reached western Italy. To determine however who in each case carried the trade and what part the Etruscans and Latins took in the industry and commerce of the period is more difficult.

During the sixth century when Latium was in their power, the Etruscans were at the height of their successes, controlling western Italy from the Alps to Campania and commanding the trade of the Tyrrhenian sea if they so chose. Their wealth doubtless depended largely upon the exploitation of the natives who as serfs were made to till the soil for them. Large and rich cities like Caere, Tarquinii, and Vulci did not lie in the metalliferous zone nor did they hold peculiarly advantageous positions for commerce though they doubtless profited by bringing goods of the interior to sea-farers. As a race, however,

the Etruscans seem everywhere to have taken a keen interest in industry. Their peculiarly Oriental fondness for color, ornament, and luxurious dress and their deep religious sense that demanded the precise use of articles of cults and of the tomb gave rise to extensive native industries. Thus even towns like Praeneste[17] which had no raw materials became industrial centers from which we have recovered finely wrought jewelry in gold and precious stones, an abundance of engraved bronze mirrors and many elaborate articles of household use. In all this work, despite an apparent lack of originality of design, the technique was so skillfully developed that it often becomes impossible to say whether a given piece of work was of native or imported craftsmanship. And so, many of the products of the period are classed by archaeologists, according to design, as Phoenician-Etruscan, Ionic-Etruscan or Corinthian-Etruscan. At this time, too, vast quantities of vases were made in the Ionian and Corinthian styles and presently in the famous Attic black-figure which betray, if at all, their western origin only in an Etruscan legend or in some slight aberration in the interpretation of the myths which they undertook to represent. In the architecture of their temples the Etruscans generally adopted Ionic and Sicilian designs. It would seem in fact that Greek architects were usually imported to build them. Since, moreover, Etruria lacked good building stone they adopted from Ionia and Sicily a free use of timber. The beam ends, architraves, and pediments of wood, were accordingly

[17] Matthies, *Praenest. Spiegel*, 34.

adorned with terracotta relief-slabs. The moulds for the requisite processions of charioteers, hunters, maenads and satyrs and all the rest may at first have been imported from Ionia, or Ionian artists themselves may have been called in to design them, but native craftsmen continued to design others with such meticulous precision that it is difficult to say where native work begins. The ruins of Veii and Falerii, Satricum and Velitrae, and even of Rome have supplied cult-statues and temple figures in terracotta that can hardly be matched in beauty by the contemporary work in Greece or Asia Minor.[18]

On the sea also the Etruscans apparently played a part during the sixth century. The Greeks—who doubtless lost some of their profits because of this new competition —were wont to call the Etruscan sea-farers pirates. To what extent the name was deserved cannot be established. The methods of a business rival, especially if he be of a different race and successful, are usually impugned, whatever they may be. The objects of art found in sixth-century Etruscan tombs would indicate in any case that Ionian, Attic, Corinthian, Chalcidian, Syracusan, Cumaean and Carthaginian ware all reached Etruria with little hindrance. Nor is it probable that Etruscan traders carried the Aegean ware all the way, since Greek writers show little explicit knowledge of the Etruscans. Accordingly it would seem that the Etruscan piracy or competition did not extend to the point of closing the Tyrrhenian sea to foreign merchants.

[18] Mrs. Arthur Strong, loc. cit.; Mrs. A. W. Van Buren, *Jour. Rom. Stud.* 1914, 183 ff.

The Etruscan policy on the sea was doubtless influenced by Carthaginian precedents. Early in the sixth century Carthage had been much strengthened by the accretion of powerful Phoenician families that the Assyrian invaders had driven from Tyre.[19] Carthage henceforth began to close the African and Spanish waters to Greek traders[20] and accordingly made a treaty of close cooperation with the Etruscans. About 537 the two combined to destroy the Phocaean colony in Corsica and later made an attempt to take Cumae, a raid that failed only because of the interference of Syracuse. We may suppose, therefore, that a line was being drawn between the Greeks on the one hand and Carthage and the Etruscans on the other, and that both sides made difficulties for their opponents whenever possible. Greek skippers probably abstained from going singly into the Tyrrhenian sea as Etruscans and Carthaginians seem not to have ventured frequently into Greek waters. Perhaps that is why Greek trade increased at Adriatic ports whence the wares of Greece spread through Italy,[21] why in the same century a land-route up from Apulia to Cumae[22] was well travelled, and again why Cumaean products tended to take the land-route from Capua to Falerii. There is even some evidence that sharp rivalry existed between

[19] Myers, *Handbook of the Cesnola Collection*, p. xxxiv.

[20] The Rhodians attempted to plant colonies in western Sicily about 580 but were prevented by the Carthaginians. See also the Romano-Punic treaty of 509 B.C., Pol. III, 22, and Arist. *Pol.* III, 5, 10.

[21] Dall' Osso, *Guida illustrata del Museo di Ancona.*

[22] Gabrici, *Cuma*, 420.

the various Greek trading cities themselves, for Croton's destruction of Sybaris[23] in 510 seems in part to have been due to the fact that Sybaris commanded the valuable portage over the lower ridge of Italy whereby she had escaped from whatever restrictions the Syracusans, Zancleans, or Etruscans imposed below or above the Sicilian straits. It is at least significant that the great trading city of Miletus, which had long been on unfriendly terms with Chalcis and therefore with the colonies of the straits, showed particular distress at the fall of Sybaris. Apparently the Milesians had needed the portage road for their wares destined for the northwest.

However, we have no right to assume that absolute trade restrictions had as yet been anywhere imposed except by Carthage. Lack of friendly relations might result in raids upon unwelcome traders venturing abroad unescorted, but the fact remains that the importations of the sixth century into Etruscan territory were so varied and extensive that a relatively free trade must have existed.[24] Obviously the whole of Etruria could not be made to accept any theory of *mare clausum* for the benefit of a few coast towns that participated in the carrying-trade when such a policy would greatly reduce the commerce of cities not on the coast. Furthermore any attempt to close the seas on a long and open coast like

[23] Herodotus, VI, 21.

[24] Caere had the reputation later of having pursued a liberal trade policy. After Rome became independent Caere was of course compelled to keep an open port if she wished to retain her trade.

Italy's when the towns of the interior held the advantage of numerous land-routes would be quite futile.

Judging from the objects of foreign trade found in Etruria on sixth century sites we may tentatively picture the commercial situation as follows. Carthaginian shippers probably had free access to Etruscan ports in accordance with treaties resembling the first Punic-Roman treaty quoted by Polybius III, 22. This trade, however, connected Italy only with Africa, Spain, Britain (chiefly through Spain) and to some slight extent with Syria and Egypt. The Etruscans themselves carried on a vigorous coast-wise trade, resorting, it would seem, to Marseilles, to Cumae, and to the Silician straits. Since they seem not to have passed frequently into Greek waters[25] they must have procured their cargoes of Greek wares at the western end of portage routes, for instance, at Laos, Temesa and Medma, and to some extent from Sicilian ports and Cumae. The Greek traders, in turn, from Corinth and Ionia could therefore unload cargoes at south-Italian and Sicilian ports for further transhipment, though there can be little doubt that Phocaeans on the way to Marseilles stopped at Etruscan ports and that

[25] The lack of Athenian coins in Etruscan hoards and of intimate references to the Etruscans in Athenian records seem to prove that Etruscan shippers did not often reach the Piraeus during the sixth century. The exchange of such wares doubtless took place near the Sicilian straits. Cf. De Sanctis, *Storia dei Rom.* I, 442; Pais, *Storia Critica,* I, 357; Helbig, Rendiconti Lincei, 1889; Gött. Gel. Anz. 1912. Hackl, *Merkantile Inschriften,* p. 94, has pointed out that on the early Athenian vases the trademarks are generally in the Ionic lettering. From this he infers that the ware was ordered and distributed by Ionic merchants.

Syracuse carried an important part of the coastal trade throughout the century. Her powers on the sea and her position near the straits were such that she could not readily be thwarted. It was doubtless Syracuse[26] that spread the rapidly increasing products of Athens northward during the century before Athens became a carrying nation.

Latium was, of course, though not an aggressive participant, a sharer in all this activity during the sixth century. Rome had grown so populous that sea-farers must have resorted to her market-place whenever possible, and the land-routes from Etruria, Campania, Latium and the Sabine interior crossed at Rome's bridge. Furthermore ships put in below Ardea, some twenty miles south of Rome, to trade with the Rutuli and the towns of the Alban hills, and especially at the mouth of the Astura river to trade at Satricum, the terminal of the important roads that led inland between Velitrae and Norba to Praeneste on the North-South road and to the Italic tribes in the Hernican, Volscian, and Aequian hills.

Since bartering required a fair balance of trade Latium must have paid for the foreign wares with products in her possession, but we have some difficulty in ascertaining what these could have been.[27] Rome may have had

[26] Syracuse was one of the earliest cities in the West to adopt the Attic standard in her coinage, Gardner, *History of Ancient Coinage*, 214.

[27] On early Roman industry see Pinza, *Bull. Com.* 1912, 50. The article on *Industrie* in Pauly-Wissowa, by Gummerus, the erudite economist of Helsingfors, though published in 1916, is not yet available here.

some share in the metal industry which is so well attested for Praeneste. Plutarch, who may have had access to reliable information on the point, mentions gilds of gold- and copper-smiths as existing in the regal period, and the Vicus Tuscus of Rome may have derived its name from a colony of Etruscan artizans. Indeed the famous Capitoline wolf,[28] treasured by modern Rome as one of its most precious relics, seems to be a sixth century masterpiece of Ionian-Etruscan art which, if made at Rome, would be a product of that industry. There could have been little exportation of grain, Latium's chief product, in the light ships of that day, but the Latins could supply the mountain tribes of the interior with grain in exchange for wool and hides which might then be conveniently exported. Furthermore their grain may also have been used in procuring copper from the industrial cities beyond the Tiber which in turn could serve as payment for imports. At any rate Latium must have exported copper since the Latin word *nummus* came to be current in Sicily for money. Similarly the Sicilian word for pork, which seems to come from Latin *arvina,* indicates that the early Latins raised swine enough for purposes of exchange.

From the very end of the period, immediately after the expulsion of the Etruscan tyrants and the establishment of the Republic, we have a commercial treaty between Carthage and Rome—fortunately preserved by Polybius —which throws more light on the commercial methods of that day than do the confused heaps of broken ware.

[28] Petersen, *Klio,* 1909, 34.

This document, one of the most valuable records of ancient history reads as follows:[29]

"There shall be friendship between the Romans and their allies, and the Carthaginians and their allies, on these conditions:

(*a*) "Neither the Romans nor their allies are to sail beyond (west of)[30] the Fair Promontory, unless driven by stress of weather or the fear of enemies. If any one

[29] Polybius, III, 22. Polybius places this treaty "in the first consulship of the republic, the year in which the Capitoline temple was dedicated, twenty-eight years before Xerxes' invasion of Greece," that is, in 509–8 B.C. Despite this explicit dating of a treaty then still available in the Capitoline temple, Mommsen, Täubler (*Imperium Romanum,* p. 269) and many others have dated it in 348 B.C. However, a careful study of Rome's territorial growth leads to the conclusion that the political provisions of this treaty accord with the date given by Polybius and no other. Carthage assumes in the third clause that Rome was sovereign over all the coast towns as far as Tarracina. Immediately after the revolution, Rome supposed that she would inherit and exercise the sovereignty over Latium as the Etruscan king had done. A few years after the revolution when hard pressed by the Etruscans she had to win the good will and support of the Latins by surrendering this claim and acknowledging the autonomy of the sister cities of Latium in a league. Never again till after 341 could the Latin cities be called "subjects" of Rome, and no one would claim that this treaty is later than 341. We must, therefore, admit that Polybius is approximately correct in his date.

[30] In commenting upon this treaty in III, 23, Polybius apparently thought ἐπέκεινα meant South, that is the region generally called Libya in his day. However, the next treaty quoted by Polybius (III, 24) which is more explicit proves that the north coast of Africa west of the promontory is meant.

of them be driven ashore there he shall not buy or take anything for himself save what is needful for the repair of his ship and the service of the gods, and he shall depart within five days.

(*b*) "Men landing for traffic in Libya or Sardinia shall strike no bargain save in the presence of a herald or town-clerk. Whatever is sold in the presence of these, let the price be secured to the seller on the credit of the state.

(*c*) "If any Roman comes to the Carthaginian province in Sicily he shall enjoy all rights enjoyed by others.

(*a'*) "The Carthaginians shall do no injury to the people of Ardea, Antium, Laurentum, Circeii, Tarracina, nor any other people of the Latins that are subject to Rome.

(*b'*) "From those townships of Latium which are not subject to Rome they shall hold their hands; and if they take one shall deliver it unharmed to the Romans.

(*c'*) "They shall build no fort in Latium; and if they enter the district in arms, they shall not stay a night therein."

This, our earliest existing commercial treaty of the West, is so precise and carefully constructed that it permits us to posit a long development of international diplomacy in the Tyrrhenian sea before the close of the sixth century. It is apparent that the day had long passed when, as in Homer's day, men generally assumed that all sea-farers were on occasion sea-rovers.

It also reveals Carthage as a far more important com-

mercial and political state than Rome,[31] for Carthage obviously composed and imposed this treaty. The numerous restrictions mentioned first are all in favor of Carthage. Indeed it is difficult to see how any state that had the least interest in commerce and the power to protect it would acquiesce in such terms. Nor must it be inferred that the clause excluding Roman ships from Numidia implies an extensive Roman commerce. These prohibitions which accord with customary Punic policy were probably inserted in view of a possible future development of Roman trade, or possibly in memory of what Etruscan Rome had done before the revolution. The treaty does not prove anything for the trade of Rome after the expulsion of the kings, an event that must have involved a marked emigration of the commercial and industrial classes. Certain it is that the liberated Latin people, true to old instincts, presently turned landward and that in the fifth century Latium was less frequently visited by foreign traders. In fact we shall find that Carthage did not consider it worth while to offer a new commercial treaty until the democracy of the fourth century showed some interest in foreign trade by colonizing

[31] Frank, *Mercantilism and Rome's foreign policy,* Am. Hist. Rev. 1913, 234. Täubler, *Imperium Romanum* (1913), 264, has demonstrated that the clauses concerning the surrender of the site of a captured city and the submission of trade-disputes to public settlement follow Punic and not Roman ideas. Kahrstedt, *Klio,* loc. cit., has quite missed the political significance of this treaty.

Ostia, and even that treaty[32] shows that Rome was incapable of asking for equitable terms.

The document also shows that Carthage had already advanced far in the enforcement of a practice of *mare clausum*. She reserved the Numidian and Moorish coast, and probably therefore the straits of Gibraltar, completely for her own traders. This was, of course, practicable since the desert protected her from competition from the rear. Sardinia and Libya are not yet wholly closed, as by the next treaty, since the Punic fleet was still too small to enforce such restrictions, but their market-places are supervised by state officials who protect the Punic interests. Only western Sicily, whose back gates could not be closed, was open to all comers. As for Rome, on the other hand, the treaty simply assumes the open door at her port. Obviously we are to conclude that this was the traditional policy of Italian cities and that it had been so in Etruscan Rome. Indeed the very fact that Carthage, the long-standing ally of Etruria, could make a commercial treaty with Rome immediately after the revolt from Etruria is good evidence that the Etruscan-Punic alliance did not and had not reserved the Tyrrhenian sea to the two signatories. We have seen above why with the numerous land routes of Italy, an attempt to close this sea would have been futile.

The treaty then on the one hand reveals Carthage as a powerful commercial nation which is eager to monopolize

[32] Polybius, III, 24. The date is 348 B.C. The political situation implied in it accords with the conditions in Latium just before the Latin war.

trade routes and to gain as many new ports of entry as possible; on the other hand it implies that while Rome may in the past have taken some part in shipping she was now more concerned about the territorial integrity of Latium than about commerce and was willing to keep her ports open to all law-abiding sea-farers.[33]

[33] Since opinions have varied widely regarding the reliability of early Roman historians, it is only fair that every historian of Rome should inform the reader of his attitude on this basic question. In the present volume, Polybius, Diodorus, and even Livy have been freely used in the belief that they provide an account of the Republican period which may, with some caution, be trusted. The Romans, respectors of law and legal forms to an unusual degree, preserved copies of their treaties, laws, and senatorial decrees, and also the high priests' brief record of events. The pontifical annals purported, to be sure, to record only events of religious significance, but since only men of political dignity became priests, their annals were apt to contain many items of political import.

The common assumption that most records were destroyed by the Gauls in 390 B.C. is far from probable. Archaeologists believe that most of the temples escaped destruction and with them the records they contained. Apparently the Celts, as is often the case with primitive peoples, respected the holy places. At any rate, the treaties, which were kept on the Capitol, survived. (See Roberts' discussion of early archives in *Mem. Amer. Acad. in Rome,* II.)

The earlier historians of Rome, like Fabius Pictor, were statesmen trained to acquire an accurate knowledge of laws and treaties. It is incorrect to ascribe to such men the loose historical methods that were followed by the rhetorical romancers who wrote for entertainment in Sulla's day. The care and knowledge they employed in affairs of state they doubtless used in their composition of history (Duckett, *Studies in Ennius*).

In using later historians who have filled in the Fabian skeleton

with legendary material, we may in general assume that the main structure of the chronology is reliable—allowing of course for a discrepancy of three or four years for the early period—that the consular lists are equally safe, and that in large part the laws, treaties, senatus consulta, colonial dates, and dates of important wars are acceptable. It must, however, be remembered that bills proposed but not passed and senatorial debates were not recorded, and that the pontifical records had no space for such things as military movements. Hence when such things occur in the accounts of the period before 300 B.C. they must be considered as mere oral tradition which it is safest to reject wholly. After such purgation the account afforded by our literary sources seems to be in reasonable accord with the latest conclusions of archaeology.

CHAPTER III

The Rise of the Peasantry

The sixth century ended with a revolution[1] that drove the Etruscan tyrants out of Rome. That this was not entirely a nationalistic movement we may infer from the fact that many of the nobles prominent in the new government bore Etruscan names.[2] Nor does it bear the marks of being a democratic stroke: the succeeding government was in every respect oligarchic in form. But it inaugurated a bitter struggle of two centuries between the patricians who controlled the state, and the plebeians who bore many of its burdens although enjoying few of a citizen's privileges. This new revolution shows in its endless checks and counter checks, its intricate compromises and juristic fencing, the patient legal-mindedness of the Roman race. No nation in history except the English has under like pressure produced a similar drama of

[1] The story of the revolution is of course full of legendary elements. However, in view of the persisting hatred of "kings" in historical times, and the definite provisions in early laws against the crime of *adfectare regnum* it is safest to assume that the political consciousness had actually been deeply affected by a revolution which stirred the city to its foundations. Acts of very deep significance, like the exaction of the Magna Charta, for instance, are not likely to be wholly distorted by legend.

[2] See Schulze, *Röm. Eigennamen.*

bloodless revolution. Recent criticism[3] has been prone to call the struggle wholly political, pointing out that the traditional narrative of it was produced after the Gracchan days and was therefore probably colored by ideas that emerged in a later day. However, even if there be overmuch economic interpretation of the early revolution in Livy, the laws which the struggle produced are abiding testimony that the battle was fought largely on economic grounds; and early Roman society reveals a caste system largely based upon economic premises. The story of the struggle, therefore, has a place in a Roman economic history.

Before the revolution the great bulk of the peasants was in the position of more or less free villeins. We do not know that there was actual serfdom, and we are never told of a definite "freeing of the serfs," though recent historians[4] have suggested that the creation of "tribunes of the plebs" in 495 may imply such an act. If some or many of the peasants had fallen into serfdom the liberation may of course have been a gradual movement which therefore left no trace in the laws that survived. So, for instance, it is possible that the Etruscan autocrats of Rome had pursued a policy of weakening the powerful landlords and of protecting the peasants for the sake of bolstering up their own power; or again the lords during the revolution may have resigned their rights to many customary services in order to assure the loyalty of their

[3] See Niese, *Hermes,* 1888, p. 410. De Sanctis, *Storia dei Romani,* II. 213.

[4] Neumann, *Bauernbefreiung,* 1900, in part accepted by E. Meyer, article *Plebs,* in Conrads *Handwörterbuch.*[3]

villeins in the struggle with the king's troops. Such things occurred everywhere in the breaking up of the medieval feudal system.[5] At any rate no sure trace of serfdom is found in the early republic, for the so-called Servian constitution, while based mainly upon an economic division in the electorate and in the army, giving the predominance of power to rich landholders, constitutes a large part of the army from peasants whom it assumes to be freeholders. Whether the peasants were serfs or free in the sixth century, however, they were in a miserable economic condition.

In the first place their lots were small and of decreasing value. The very works of reclamation which we have noticed are proof that the land was being driven to the capacity of its production in order to feed an overcrowded population. That the soil was being exhausted and refused to respond to all the requirements is also shown by the frequent notes in Livy[6] recording famines and food commissions in the fifth century. If furthermore the peasants had recently received their freeholds, as seems probable, they must have had all the problems of economic independence to face on their own responsibility and with little experience. This occurred too at a time when the penalties of an extremely severe property

[5] Cf. Lipson, *The Economic History of England,* p. 77.

[6] Cf. Livy, II, 9; 34; 52; III, 32; IV, 12; 25; 52. Some of these passages are doubtless based upon conjecture, but it must be remembered that the priestly *annales* made a point of recording things of religious import like *quotiens annona cara, quotiens lunae aut solis lumine caligo aut quid obstiterit,* Cato, *Orig. frag.* 77.

law permitted debtors to be reduced to a state of peonage or to be sold into foreign lands as slaves. If under such conditions the peasants called for material relief as Livy so insistently contends, is his story not reasonable? And if they also asked for a better standing in court and equal political rights, this was due in no small measure to the fact that they knew that the most direct road to a more comfortable existence led by way of civil and political equality.

Certain urban classes possessing inferior rights also shared in the contest. The aggressive policy of the kings who had brought Rome into the currents of Etruscan commerce and industry had invited many workmen to Rome. Doubtless Rome had some share in the production of such things as we can attribute to most of the neighboring cities,[7] gold jewelry, engraved and chased work in silver for ornaments and toilet articles, all kinds of utensils in copper and iron, pottery and architectural ornaments of terracotta, clothing, armour, and much besides. Commerce required service at the docks,[8] in transportation and in shops. Much labor was employed in the building of temples, public works and palaces. But many

[7] Pinza, *Bull. Com.* 1912, p. 53. Rome later spread so rapidly over the regions where the early habitations and graves had been that very little has survived from which to judge the state of her earliest industry. The best records naturally come from the neighboring cities which dwindled away because of Rome's increase.

[8] There are traces of a sixth-century village near the center of Ostia. About the middle of the fourth century a small colony was planted there and the village fortified by a wall which seems now to have enclosed three or four acres of ground.

of those who had been invited to the city by these industries were left in difficulties on the expulsion of the kings, for Rome was not only then severed from Etruria, the home of these industries, but also apparently from the currents of commerce. Very few articles dating from the fifth century have been found at Rome which indicate contact with Greece or the East, and the seaport at Ostia seems to have fallen into neglect. An idle proletariat quite ripe for revolution resulted. Was the *lex Icilia de Aventino publicando*[9] of 456, an effort to pacify this class with small plots of land, and were the first four tribunes intended as official patrons for these city poor to take the place of the king whose expulsion had left them without protection?

Livy[10] connects the first "secession" of the plebeians with the Latin wars that followed the expulsion of the kings. He had of course no contemporaneous source that provided an explanation of causes and effects, but his conjecture is wholly reasonable. This was a period of liberation for the Latins as well as for the Roman plebeians, and the one movement may well have induced the other. The first Carthaginian treaty, as we have seen, implied that the kings of Rome had made their city master of Latium as far as Tarracina and the new Republic in this treaty assumed that it would continue the same hegemony. This of course could not be, for the new government, having incurred the hostility of the Etruscans,

[9] Rosenberg, *Hermes*, 1913, 371, thinks the *lex* a proof that the plebeians of the city were still non-citizens who could be kept within a "pale."

[10] Livy, II, 32.

was too weak for such a task. The Latins naturally claimed their former position of freedom in a tribal union;[11] when refused they fought for it, and in time

[11] The tribal union later called the "Latin league" went through constant changes, some phases of which we seem able to define.

(*a*) Before the Etruscans entered Latium, there must have been some common tribal cult which made for unity of action even in political matters, especially in times of danger.

(*b*) The Etruscan princes gaining possession of various hill-towns shattered this union. The leadership throughout Latium established by the Roman king was based upon the king's power not upon racial unity, for it extended over Volscian towns like Tarracina and Antium.

(*c*) The attempt of the Roman Republic to continue this hegemony failed, the Latin cities forming an independent Latin league from which even Rome was excluded—if, as is usually assumed, the ancient inscription cited by Cato (*Hist. Rom. Frag.* Cato, 58) gives a complete list of the members. The northern line of cities was made up of Tibur, Tusculum, Aricia, Lanuvium, Lavinium, the southern line by Ardea, Pometia, and Cora. The league therefore had slightly more territory than Rome, but failed to gain the adhesion of the Latin town of Praeneste (perhaps still under Etruscan rule) and the Volscian territory from Antium to Tarracina which Etruscan Rome had commanded. The date of this league can be fixed at about 500+ by the fact that the Latin colonies of Signia and Norba had apparently not yet been founded, while Cora is included, Rosenberg, *Hermes*, 1919, p. 159.

(*d*) After a few years of separation Rome made a treaty with the league, not as one of nine members but as an equal half of the league. This *foedus Cassianum*, plausibly dated by Livy (II, 33, 4) in 493, is given by Dion. Hal. VI, 95. During the rest of the century this Latin league worked in fair harmony in defending Rome's border against the Etruscans and the south Latin border against the Aequi and Volsci.

gained their point so that a Latin league was founded in which they formed an element of equal standing with Rome. It was in this struggle, according to Livy, that the hard pressed government called the peasantry into army service, and thus gave the plebeians an opportunity to bargain for representatives, called tribunes, who were to protect their interests.

The institution of tribunes[12] was in many respects peculiar, and implies in its very form something about the nature of the grievances that were to be corrected. The

(*e*) In the fourth century Rome began to assume leadership because of her ability to act as a unit among cities of diverse interests. After several disagreements on this score, especially after Rome was weakened by the Gallic invasion, it became necessary to renew the league by a new agreement in 358.

In 343 there was a general revolt of the Latins against Rome's assumption of superiority, and the Roman victory in the Latin war enabled her to form the federation into which she fitted the old league members at will. The Latin cult was continued in a perfunctory way on Rome's responsibility, and all Latin communities (50 or 60, Pliny, III, 69) were admitted to the festival on equal terms including many towns that had belonged to Rome (e.g., Gabii, Bovillae, etc.) or to the other former members of the league (e.g., Bola, Corioli, etc.).

Since after 493 there was *commercium* and *conubium* between all Latins of the league, and residence secured citizenship in any city, we may assume that economic changes whether at Rome or in any part of Latium quickly made themselves felt throughout the territory of the league.

[12] Livy, II, 33; Diod. XI, 68. The early number and the date (495 or 471) were matters of dispute among the Romans. See especially Mommsen, Staatsr. II, 272, E. Meyer, Art. *Plebs* in Conrads *Handwörterbuch,* and Rosenberg on *sacrosanctus* in *Hermes,* 1913, 359.

tribunes, at first apparently four, were *sacrosanct,* which implies that the plebeians had formed a separate body in the state and had compelled the government to take an oath to respect the persons of their representatives under penalty of divine vengeance. This fact proves that tradition was correct in attributing the plebeian victory to a strike. Moreover the fact that the tribune's power at first was not magisterial, but personal, applicable in the aid of individuals and that only within the city walls, justifies the inference that his services were those of an advocate to be exercised in cases of alleged injustice of the court and its agents. It was the tribune's business therefore to protect the personal liberty of the poor man who was in danger of falling under the debtor's sale, and at least to see that he had his days of grace and an opportunity to summon his friends to his relief. The whole institution in short points to economic grievances as the starting point of the revolution.

Once organized however, the tribunes readily extended their powers. The meetings of the plebeians for elections enabled them to discuss and formulate further measures, to instruct their representatives, and when they had grown into a compact body to use pressure upon the government through threats of tribunal interference. Thus in 452 they forced the government to promise a codification and publication of customary law whereby arbitrary rulings might be checked and a basis laid for intelligent reforms. A few years[13] later they compelled

[13] The traditional dates are: twelve tables, 451; the laws of Horatius and Valerius recognizing in some measure the plebiscite, 449; lex Canuleia permitting *conubium,* 445.

the legislative assembly to recognize a plebiscite as a bill which the assembly must consider, and presently social distinctions were removed by the permission of intermarriage between plebeians and patricians. In 393 an old custom of the Latin league was resurrected and the territory recently taken from Veii was distributed to all citizens, each receiving seven jugera. To the great significance of this act we must recur; suffice it here to say that, as the distribution was a proof of democratic power and set a precedent for the party's policy, it also in turn strengthened the party by lifting a large number of the proletariat into the class of property owners, thus giving them better standing in the legislative assembly and doubtless starting many on the road to economic success. Their increased strength enabled them finally by means of the Licinian-Sextian law of 366 to gain entrance into the consulship,[14] the highest magistracy in the state, and

[14] The Licinian-Sextian laws contained, according to Livy, a clause restricting the rental of public lands. Recent critics have with Niese, *Hermes*, 23, 410, placed this restriction in the second century. There seems to be no definite way to settle the dispute. In two subsequent passages, Livy indicates judicial actions on infringements of the law which, if accurate, imply that the traditional account is correct. In VII, 16, he reports that Licinius was himself fined for possessing a thousand acres in 357, and in X, 13 (298 B.C.) that very many persons were fined *quia plus quam quod lege finitum erat agri possiderent;* cf. X, 23; X, 47 (*damnatis aliquot pecuariis*), seems to refer to the same law.

The law well corresponds to the economic situation of that time as we now know it. Land was deteriorating in value and some landlords who were consequently introducing cattle raising must have sought for extensive leases. The poor had already

to strengthen their opportunities of sharing in further land distributions by limiting to 500 jugera the amount of public land that any man might rent. Thus the plebeians gained legal recognition for their claim to political and civil equality and some measure of economic relief.

We may conveniently anticipate, and add that in 287 the plebeians by a very peculiar method used their power to establish equal manhood suffrage in legislation. They compelled the legislative assembly, which voted by classes based upon property, to recognize as of equal standing the tribal assembly which voted by wards, apparently inviting the patricians who were of course a small minority to participation in the tribal organization. Thus this state within the state, a kind of soviet government, grew, by absorbing the patrician element, to be the very state itself; thenceforth tribunes could call the populace together under their presidency to decide the politics of the commonwealth. This was victory more than complete, and had Rome remained a state of small size, whose problems the populace had dared to settle single handed without the advice of the senate, Rome, like the Greek city-states, would henceforth have provided an example of a pure democracy.

In the light of this evolution we may recur for a moment to the land distribution of 393 whereby all citizens secured an allotment of seven jugera from the cap-

learned the advantage of land distribution but had of course sustained many losses in the Gallic invasion. We need not assume with Niese that the law presupposed a great number of latifundia at this time, for the existence of a few might suffice to induce preventive legislation.

tured Veian territory immediately north of the city. To the wealthy landholders, of course, the allotment brought little of value; they probably sold their portions or leased them. To the proletariat, however, it gave in those days of hand-tools and intensive culture enough for a livelihood. To the state it meant that through a period of gravest dangers Rome was to be provided in these working landowners with a sound body of patriotic and reliable citizens. These aided her for some time to avoid the immobility of an absentee landlord class and the listlessness of peasant-tenants or their substitute, the farm slaves.

The Romans knew as well as we, of course, that the working landowner on his small farm was not always progressive. A master farmer like Cato, instructed in the agricultural lore of the Greeks and Carthaginians, could doubtless plant more wisely and secure greater returns by adapting his crops to the soil and to wider market needs. Like the Renaissance advocates of the enclosure system in England he knew that there was an economic advantage in concentration. Furthermore he must have found that the division of the Veian lands into small plots destroyed the possibility of operating the extensive drainage tunnels which had been dug through large tracts of that territory.[15] Individual holders of small lots would hardly take care of their segments when unable to control the current above and below, and co-

[15] There are still many traces of these drainage tunnels to be seen in the valleys near Veii, especially toward the north where the land is hilly; they have also been reported in the neighborhood of Bieda further north, *Röm. Mitt.* XV, pp. 185–6.

ordinated effort was probably out of the question.[16] At any rate the tunnels fell into disuse, and the total of production must have fallen also.

However, maximum production was never an ideal of Roman statescraft. The senate usually considered the value of its citizens from the point of view of military and political needs, and the democratic element looked of course to social as well as economic amelioration. Obviously a homogeneous citizen-army was highly desirable in a small state as poorly protected as Rome. To constitute such an army it was necessary to have a large proportion of responsible property owners for whom the defence of the state was a matter of personal interest. On that idea the army had been built for centuries. It was equally important that the nation should have a large group of self-supporting citizens whose opinions and sympathies were stabilized at election time by contentment and faith in the existing order. These were everyday doctrines at Rome, and few statesmen permitted themselves to advocate in the senate economic advantages of a landlord system over the political and social advantages of the system based upon the working proprietor. If the former system nevertheless emerged victorious in the end, it was not for want of comprehension and interest but rather because the force of economic laws withstood the application of such remedies as were then available. That Rome bore so well the shock of the Gallic invasion, that she passed without bloodshed through the

[16] There seems to be a reference to this difficulty in *Digest*, 39, 3, 2, 1.

broils of the class struggles, survived the revolt of the Latins, and had the prudence to devise the liberal and flexible constitution which enabled her to unite Italy in an effective federation, all this seems now in no small measure due to the habit of providing by land-distribution a solid and interested citizen-body from the proletariat.

In the above summary the slow evolution of plebeian civil rights has for unity's sake been considered simply in connection with agrarian problems. Near the end of the crisis the economic problems were not a little complicated by the entrance of a new factor, the establishment of a state mint, which by the issue of money, not hitherto used, for some time upset the stable economic system of Rome, brought on financial upheavals, and quickened the course of the revolution.

The precise date at which Rome instituted a mint is now difficult to determine. The Romans, who were prone to credit all their institutions with great antiquity attributed the innovation to Servius Tullius. But the designs upon the earliest coins are now definitely assigned on artistic grounds to the fourth century.[17] If the prow,[18] which serves as the emblem upon the first coins, has

[17] See Hill, *Historical Roman Coins.*

[18] The arguments for the dates of Ostia I have given in *Class. Phil.* 1919, p. 314. The statement of Festus, who says the colony was subsequent to the first building of the village, is supported by the facts that its citizens belong to two different tribes and that its government has a double set of officials. See Taylor, *Cults of Ostia.* Recent excavations have revealed a city-wall which shows the workmanship and the material prevalent in the fourth century, see *Am. J. Arch.,* 1918, 182.

reference to the colonization of the seaport of Ostia, which dates from about the middle of the fourth century, we have in this first issue an explanation of several peculiar financial measures that followed immediately. In 352 a bankruptcy commission[19] was appointed; in 347 the legal rate of interest which had for a century stood at 8⅓ per cent. was halved, and in 342 the taking of interest was absolutely forbidden. The laws look very much like an excited effort on the part of a government inexperienced in financial affairs to curb the evils which result upon a sudden "inflation" of currency. It is clear that the first issue of currency in an age that had been accustomed to barter must have acted as does a heavy over-issue to-day and upset the peaceful tenor of the market. It must have stimulated buying and invited new trade to the city, it must have facilitated borrowing for new ventures, not to speak of needless and perilous ones; and since prices tend to increase with the quantity of currency there were doubtless many miscalculations and numerous failures. How this situation quickly led to such financial crises as Livy records can readily be conceived. The laws that were passed to meet the stress show that the lower classes were gaining an everincreasing influence over the government. It was only three years after the prohibition of interest that the bold plebeian leader Publilius Philo passed the laws that can-

[19] The bankruptcy law, Livy, VII, 21; the laws on interest, VII, 27, and VII, 42, to be read with Tac. *Ann.* VI, 16, and Appian *B. C.* I, 54.

celled the privilege of the patricians in the senate to veto legislation.

Statesmen, however, learned that in forbidding interest they had only increased the difficulty: later notices show that the old legal rate was soon accepted; and when presently conquests in Latium and Samnium opened up new lands for colonization the surplus currency was doubtless absorbed and the financial equilibrium re-established.

CHAPTER IV

New Lands for Old

The intensity of the effort to reclaim small bits of eroding land was a proof of overpopulation and of a dangerous drain upon the productive qualities of the soil.[1] The danger of soil exhaustion was peculiarly great in Latium for several reasons. The soil there had not had a long time for accumulation. Along the extensive ridges of lava that radiate from the Alban hills toward the Anio, along the Appian way, and down toward Ardea, the surface was so hard that soil-making was well-nigh impossible. In such places the plow cannot now be driven. A mere scratch in the thin turf exposes the lava. In other places the conditions were more favorable since the ash and tufa are fairly productive for plants of powerful roots when covered with a humus of proper physical consistency and containing some nitrogenous matter. The surface was, however, new and therefore thin everywhere except in alluvial valleys. To add to the unfortunate conditions, the ash had fallen unevenly in knolls that time has not yet shaped down into a peneplain. In consequence the Campagna presents to the abrading rains of winter a very uneven surface, and when the Latin settlers had once stripped the turf and forest from that surface, the thin soil was in danger of washing away. It is

[1] See chapter I.

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not surprising that the Latin farmer found it necessary to entice the thieving rainwater into underground channels with the utmost speed. The surface loam was very precious and must be saved. Notwithstanding his efforts, however, the exhausting harvests and the continual erosion did their work, and Latin agriculture was doomed, and with it the thick adornment of prosperous Latin villages. The situation could well be illustrated by the history of agriculture in the sandy districts of central Pennsylvania, where the traveller to-day passes through large areas of country almost uninhabited though well studded with barns and farmhouses now abandoned and falling into ruin. Here the settlers of two centuries ago found a rich but thin alluvial soil lying over a subsoil of sand. A century of reckless tilling drew great wealth from the soil, but when that had been exploited the land was of little value and the farmers left it.

The situation in Latium never grew equally desperate, nor will it, since the subsoil there, even though slow to yield its wealth to the feeble roots of mere annual vegetation, is nevertheless comparatively rich. Yet, to judge from the constant cries of distress reported by the early books of Livy, the fifth and fourth centuries before our era were years of increasing exhaustion. To add to the desperate situation, the extensive forests[2] which had insured rainfall well into the summer and had helped husband the moisture in the dry season were ever giving way to the axe. The pressing demand for land resulted in the clearing out of every tract that could be made

[2] Nissen, *Italische Landeskunde*, I, 432.

arable; the abundant population laid large demands upon the forests for lumber; and commerce, as we have seen, carried Latin timber as far as Greece, now well stripped of trees. The deforestation of the Volscian mountains on the south of the Campagna resulted in the ruin of that whole region, for the rains washed the mountain sides clear of soil, carried down the detritus into the flat plain below, choked up the course of the streams and turned what was once the garden spot of several large cities into malarial marshes, a pest not only to its own dwindling population but also to villages as far off as Satricum and Astura. Norba, Cora, Setia, and Privernum dwindled down to unimportant hamlets. The same process of deforestation of the Sabine hills turned these also into bare rocks. Precipitation decreased, the dry seasons grew in length, the rain that fell found its quick course to the sea, and Latium became gradually the semi-arid plain that it is to-day.

While this change was in process the farmers naturally sought for remedies. There was scarcity of manure because during the very intensive tillage when every acre was in use it had not been profitable to keep cattle, since beef was rarely served as food, and horses were not in general use. When, however, many farmers found the loam too thin for further cultivation they had no choice but to seed their fields into pasture land, since turf could at least protect whatever loam remained. A few oxen were needed as draft animals, and the wealthy lords of the city provided some market for the meat. Sheep were also in demand for wool, though this had generally come

by barter from the mountain pastures that were fit only for sheep-raising. Goats might be raised for milk and cheese.

The chief difficulty for the shepherd and herdsman was the lack of grass in August and September, which necessitated the laborious work of cutting leaves from trees.[3] However, in the fourth and third centuries, when the neighboring mountain pastures of the Volscian and the Sabine hills fell within the political sphere of Rome, a profitable combination of summer and winter pastures became possible. Whether it was the Latin landlord who sought to tide over the arid summer by resorting to the mountain pastures in dry season, or whether it was, as in the middle of the nineteenth century, the Sabine flock-owners who discovered green and warm winter pasturage for their flocks in the abandoned farms of the Campagna, we do not now know. But when once the discovery was made the Latin landlords were quick to seize the opportunity to find a now profitable use for the land that would no longer yield a reasonable harvest of grain. The earliest record we have of Roman slaves in great numbers shepherding on the mountains near Rome dates from the Second Punic War[4] but since such notices are incidental and rare we need not assume that the custom was then of recent date. He who has had the misfortune of trying to make his way from Tivoli to Rome against the endless procession of sheep going mountainward during

[3] Pliny, *H. N.* XVIII, 314.
[4] Livy, XXXII, 26.

the first week of July knows well what Horace[5] meant when he wrote:

Jam pastor umbras cum grege languido . . . quaerit.

This change, however, had serious consequences. Profitable sheep- and cattle-raising required capital, if indeed pastures were to be provided in two regions; and obviously, since the shepherding of a hundred sheep required little more labor than the care of half a dozen, the poor farmer with his small plot fell quite behind in the competition. Thus the small farmers gradually yielded ground to the master who could command the capital of large-scale ranching; and a general "enclosure" movement began at the expense of the grain fields. Again, since little skill was required, slaves were bought to care for the herds, and henceforth an area of a thousand acres, which in the days of profitable tillage had supported a hundred peasant families, now fell to the charge of a few foreign slaves living at random. The depopulation of the Campagna proceeded apace.

Another industry presently hurried the process of crowding agriculture out of the Alban region. Here the abrasion of the soil had been most rapid because the slopes were steeper, but it was discovered that while the weak roots of annual plants like wheat and barley could no longer cope with the soil, grape vines and olive[6] trees

[5] Horace, *Carm.* III, 29, 21; cf. Varro, *R. R.* II, 1, 16; II, 2, 9–11; 5, 11; *L. L.* V, 36; Pliny, *Epist.* II, 17, 28.

[6] The festival of the Vinalia was recognized in the calendar of the regal period, but wine was not much used in the oldest cults.

could readily nourish themselves even in the tufa and ash that remained. All that is necessary is to hack out and crush the tufa and plant the roots deep with a handful of loam for the plant to feed upon when young. When the plant grows strong it finds its own nourishment where grain fails in the struggle. From that time to this the vineyards and olive groves have never disappeared from the hills and valleys about the Alban lake. Obviously this industry also was developed by the men of wealth who could afford to wait five years for the first vintage and fifteen years for the first returns on their investment in the olive groves.

It is customary to say that when Rome gained possession of Sicily in the first Punic war and thus inherited from Carthage the grain tithes of that island she destroyed agriculture in Latium by flooding the market of the Latin farmer with cheap grain. But is it probable that the Roman landlords, who after all controlled the State, would have adopted a policy so ruinous to their

At the time of Pyrrhus the vineyards of the Alban hills are mentioned, Pliny, *N. H.* XIV, 12. In classical times the vine was cultivated farther down into the plains than it is today, for it is mentioned as a product even of Ardea (Colum. III, 9), Gabii (Galen, 6, p. 334), and other places now used solely for grain or pasture land.

The olive was imported later, its culture being connected with Castor and Pollux. Pliny quotes the price at Rome for 249 B.C. as being 10 asses for 12 lbs.—a very high price (XV, 2). Plautus' (*Capt.* 489) joke about the "combine" of oil merchants in the Forum implies that olive oil had become a staple of the market before the second century. Latium, however, did not raise a surplus for export until Cicero's day.

own interests? Or is it likely that they were so stupid as not to see that this would be the result of bringing the Sicilian tithes to Rome? Is it not far more reasonable to suppose that the process we have sketched had actually progressed far by the middle of the third century, that Latium had already become a failure as a grainland, that the landlords had already turned to other industries, and that Sicilian grain filled a need already keenly felt?

The momentous changes here sketched in brief compass were the work of a long period from the fifth to the second century. They necessitated of course a constant reshifting of a population which we have found reason to believe was very dense in the sixth century. A similar exhaustion of the soil in Greece somewhat earlier had driven large hordes to colonize foreign lands and had turned many into commercial and industrial enterprises which revolutionized such cities as Athens and Corinth. Rome sought neither remedy directly. Her citizens did not abandon Rome for foreign lands, nor did Rome turn to manufacturing and commerce, although there seem to be signs in the building of Ostia and in the legislation of Appius Claudius[7] that there was for a while a tendency in that direction. The surplusage of Roman population

[7] Meyer, *art. Plebs* in Conrad's *Handwörterbuch,* expresses the belief that when Appius (about 312) built the aqueduct into the lower sections of the city, paved the Appian Way, and permitted the *liberti* to register their vote in whatever ward they chose, he intended to encourage and to give political power to an industrial proletariat. In view of the present state of our archaeological knowledge of the period the theory seems somewhat to overleap the evidence.

found an outlet instead in the territorial expansion which set in under the vigorous democratic leaders that came to the fore in the middle of the fourth century, soon after the plebeians had won their contest for the consulship in 366. In 343 the Romans aided the Campanians in driving back the Samnite mountaineers. The war resulted after two years in an allied victory through which Rome received some territory north of Campania for colonization. The year after this war the Latin peoples revolted from Rome's hegemony and, being defeated, were incorporated into the Roman state, part as full citizens, part for a probationary period as non-voting citizens. There were of course losses of men on both sides, and some land was confiscated and settled by Romans. In 328 a new Samnite war broke out which gradually spread through the whole of central Italy including the Etruscans, Umbrians, and Sabine peoples. For forty years there was almost constant warfare. This was finally followed by the war with Pyrrhus whose defeat left Rome the recognized leader of a federation extending from the Arno throughout the whole of Italy.

This era of territorial expansion followed as we have seen a period of over-population and land hunger which had expressed itself constantly in a clamor for economic and social amelioration. Historians who have written of the period have always been disposed to conclude that land hunger was the driving force which led to the expansion. Possibly this conclusion is correct. There can be no doubt of the desire for more land. An agricultural people when hard pressed economically thinks in terms

of territorial expansion, and the Romans though very legalistic were as quick as many other peoples have been to take mortal offense at a neighbor's behavior when they need their neighbor's food. However, we have no right to be induced to this conclusion either by the short-circuited argument of *post hoc ergo,* nor by an *a priori* faith in the economic interpretation of history. It is only fair to point out first that the Roman people who had for centuries to defend their titles to desirable plain-lands against the inroads of hungry mountaineers had thereby developed to a maximum the lowlander's sense of property rights and justice.[8] It is not by mere chance that Rome's civil code has been adopted by all the world as the basis of law. Moreover a careful study of Rome's method of utilizing her victories reveals the behavior not of a land-hungry bandit but of a far-seeing political organizer. A parcel of land was often appropriated by way of indemnity, and it was frequently a fertile plot which would invite and retain its colonists, but the individual portions were generally very small, just sufficient for a military post, and among the settlers was always included a fair proportion of the allied peoples. The new settlements of the fourth century show unmistakably that the government kept needs of the state foremost, not the cry of citizens for new allotments. The first settlements were made at the seaport towns of Antium and Tarracina which had exposed Latium to the raids of sea rovers, and of Greek and Etruscan fleets. But only three hundred

[8] In *Roman Imperialism,* chapters III and IV, I have tried to explain Rome's foreign policy for this period.

men were sent to each, enough presumably to take political control and command the ports; and the allotments consisted of a few acres per man. Colonists were next settled on some land of Privernum to control the pass over the Volscian mountains behind Tarracina, land which was too exposed to the malaria of the Pontine marshes to be chosen as highly desirable for economic reasons. Above Capua in the territory taken from the Sidicini, allies of the Samnites, the Latin colony of Cales was planted. It contained 2,500 settlers, partly Romans who gave up their citizenship for the Latin status, and partly Latin and Campanian allies. Cales in fact is an instance of the typical border colony that Rome favored. Good enough land was chosen to induce the settlers to remain and guard a perilous spot, Romans and allies were mingled in recognition of mutual rights and to serve as a cohesive group in the federation, and the situation was selected chiefly for its strategic value: Cales guarded the inner road between Rome and Capua, and it separated the Samnites from the newly subjected Aurunci. Similar military colonies were planted at Luceria, Suessa, Interamna and Alba. Finally the Falernian fields above Cumae where the coast road debouches into Campania was taken and settled by Roman citizens. The reason for the appropriation was partly strategic, partly punitive, for the inhabitants, apparently an old enclave of Etruscans,[9] had aided the Samnites against Rome. The land

[9] Vergil, *Aen.* VIII, 724, makes Halaesus, a Faliscan, the leader of the troops of the ager Falernus; see Deecke, *Rosch. Lex. sub voc. Halaesus.*

was indeed excellent, but had good land been the chief concern, Rome need not have sent her citizens one hundred miles away.

These are the settlements made in the period of expansion during the fourth century and they are fairly representative of Rome's policy for the next century as well. The only difference is that in the third century the settlement of Romans alone is of infrequent occurrence, the Latin military colony becomes the standard type, and some lands, such as the Ager Gallicus, fail for a long time to find takers. These are all indications that by the third century Rome suffered not from land hunger but from a scarcity of men needed for her task.

An adequate statement of how far Rome's expansion was conditioned by economic pressure it would be hazardous to attempt without a complete review of the whole history of Rome's foreign policy. The close connection between the economic revolution and the political expansion cannot be denied. We may at least say that the over-population of Latium apparent in the early period and the distress of the people due to a gradual deterioration of the soil played an important part in setting into activity the instincts and impulses which led the government into an aggressive foreign policy in 343; subsequent ventures, and the possession of a dense population of farmers enabled the government to build up an irresistible army which made conquest relatively easy. The wastage of the wars however and the requirements for military colonies at strategic points soon absorbed the surplusage to such an extent that the third century dis-

closes an insufficiency rather than a congestion of population. Furthermore the evidence shows clearly that the government from the beginning was controlled by a well-ordered policy which considered political and military needs paramount and that it never betrayed these to the exigencies of the economic pressure exerted through individual citizens.

It is equally manifest however that the political expansion of Rome reacted permanently upon the economic life of the people. The constant availability of good lands which the state desired to have occupied against possible encroachment always attracted men and capital not otherwise occupied. Thus the Romans now felt no incentive to try new enterprises, to develop industries or to enter commerce on land or sea. During this period of expansion Rome almost isolated herself from transmarine influences. The contact with the outer world that Etruscan agencies had formerly encouraged was weakened. Temples built at Rome in the sixth century had been almost Ionic in style but the art of the fourth century shows few traces of contemporaneous Aegean influence.[10] The rude masonry of yellow tufa that remains from this period shows that Rome had ceased to follow the progress of Greek art; not till the second century did Roman architecture become aware of how far it had been outdistanced. In industrial arts the story is the same. Praeneste, the inland hill-city only twenty miles away, developed in the third century a group of silversmiths whose skill and artistry are still a source of pleasure.[11]

[10] Pinza, *Bull. Com.* 1912, 53.

[11] See Matthies, *Praen. Spiegel,* on Praenestine metal work.

It is hardly due to mere chance that Roman crafts of the period reveal none of this skill, since both cities were equally Latin. The explanation of Praeneste's new development probably lies in the fact that the city had limited its territorial bounds by a treaty of "equality" with Rome which tied it for all time to the possession of some fifty square miles and compelled its surplus energies to find expression in industry. It might have been well for Rome had she to some measure been forced back upon her inventive skill in the same way. But by the results of Rome's expansionistic ventures her citizens, always invited to settle new lands and to invest their excess capital in real property, became for all time farmers and real estate capitalists. Necessity, the mother of crafts as well as of arts, never forced them into apprenticeship in those occupations that develop the love for artificial beauty and train the instincts for commercial enterprise.

CHAPTER V

Roman Coinage

The history of Roman coinage[1] reveals one of the most interesting attempts in financial experimentation that can be found, an attempt to provide with but little use of gold —which was far too scarce in early Italy for purposes of coinage—an adequate currency for a state growing by leaps and bounds, to establish for foreign trade an acceptable medium of exchange that might compete with the issue of hundreds of neighboring states, and to keep coins of the two metals, silver and bronze, of a bimetallic system near their intrinsic values when their market prices were violently fluctuating.

Our first surprise is that Rome managed to do without coins till the middle of the fourth century,[2] though neighboring Etruscan cities had been minting money for more than a century, and the Greek cities of Southern Italy and Sicily for more than two centuries. This dilatory behavior cannot be explained on the assumption that

[1] Head, *Historia Numorum*[2]; Hill, *Historical Roman Coins;* Grueber, *Coins of the Roman Republic.* The standard works of Babelon and Mommsen serve as good introductions. Haeberlin's *Systematik der ältesten röm. Münzwesens,* 1905–7, is an original contribution to the history of Roman coinage, but is faulty especially in its treatment of historical facts. My arguments for the view that the Roman system was bimetallic are presented in *Classical Philology,* 1919, 314.

[2] See end of chapter III.

coins of other states may have flowed in sufficiently to supply the want, since the early treasure-troves of Latium disclose very few foreign coins. The only explanation is that Rome—as indeed the extant fragments of her early art imply—had quite fallen out of the currents of world-trade after the Etruscan princes had been banished, and that the sluggish agricultural economy fared satisfactorily with ordinary bartering supplemented by the use of copper weighed in the balance. It was only after the new democratic element, which gained its first decisive victory over the aristocracy in 366, demonstrated its interest in commerce by founding a maritime colony at Ostia that the state undertook to coin money; and then only bronze was issued, and in bulky one-pound pieces (called *asses*), in uncial fractions of the pound, and in multiples of the pound.

Bronze was indeed the only metal coined at Rome for the next eighty years, during the whole period of rapid expansion that made her supreme in Italy. However a few years after this first issue, when Rome sent her armies into Campania to aid in checking Samnite invasions, her generals found themselves in contact with Greek and Oscan peoples who used silver currency. In order to buy army equipment from them it was necessary to have an abundance of silver money; and the soldiers must also have desired their pay in a currency that would be respected in the cities where they were billeted. Silver was accordingly provided for use in Campania, though there is now some question as to how it was issued. Since these silver didrachms bear the name *Romano,*

though their workmanship proves them the product of the Capuan mint, Mommsen held that Capua as a dependency of Rome struck the coins at Rome's orders and for Rome's convenience, and he therefore considered them of Roman mintage issued from a subsidiary mint. It is now generally thought however that Capua was still sovereign at that time. Capua therefore seems to have lent her mint to the Roman generals[3] who issued military currency —as Flamininus did later in Greece—or she accepted a contract from Rome to issue silver for Rome's southern trade, just as certain Campanian mints afterwards coined money for Cora, Cales, and Suessa.

The pieces in question were double drachms of the size which was then generally current in Campania. They weighed about 7.58 grams, so that the single drachm was considered to be $\frac{1}{72}$ of the Oscan pound of 273 grams. On what basis it exchanged with the Roman bronze *as* we are not told. If bronze then exchanged with silver at the ratio normal later of 1 : 120, exchange must have been a cumbersome process since the silver piece would then be worth $3\frac{1}{3}$ bronze *asses*. But it is possible that bronze was then worth a trifle more and that three *asses* bought a didrachm.

Why the government did not bring this silver coinage to Rome during the fourth century it is difficult to understand. The scarcity of these coins on Latian soil, while Capuan copper coins came in abundance, would indicate

[3] See *Roman Imperialism*, p. 41, which favors a theory that the coins were issued on a contract. Haeberlin follows Mommsen in thinking Capua a dependency; Babelon, I, p. xxix, calls it a military coinage.

that Rome did not encourage their circulation northward. Could it be that Rome, taught by the financial troubles that followed her first coinage of copper, decided for the present not to introduce silver at home? That seems not unlikely, for we can hardly ascribe great financial experience to the simple legislators who forbad the charging of interest on money.

About 312 B.C.—if the wheel on the Romano-Campanian coin refers to the construction of the Appian Way—the size of the silver didrachm minted at Capua was reduced from 7.58 grams to about 6.82 grams, an act that must have displeased the Campanians among whom the coin was meant to circulate. Rome could hardly have done this unless her position in Campania had been strong both politically and financially. It is plausibly assumed that Rome could have ventured upon such a move only after Capua had committed acts of disloyalty to the league as she did in 312, and had in consequence been relegated to a somewhat inferior position. Rome's reason for reducing the coin was apparently to establish a convenient rate of exchange with the bronze *as* her standard coin, at a ratio between silver and bronze of 120:1.

This slight change is interesting because its effects soon proved to Rome the force of "Gresham's law" that, other things being equal, an inferior coin tends to drive out one of superior value. What happened was that Rome presently came, in the conduct of the protracted Samnite War, into direct trade relations with Lucania and Apulia where the currency of the South-Italian Greeks had

hitherto dominated, and where her new didrachm, which was about 15 per cent. lighter than the Tarentine coin generally used, threatened to drive the latter out of circulation. Tarentum[4] retorted with a similar reduction of her own coin. The incident demonstrates how powerful Rome was becoming in the South.

In the decade following 312 the bronze *as* which was still the standard coin at Rome was gradually reduced to half a pound, and the fractional coins proportionally. This act is explained by Mommsen as an effort to relegate bronze to the position of token money.[5] His theory however involves several difficulties. Bronze was still the trading metal in the Roman market and there is little evidence that enough silver had come to Rome to take a dominating place. Throughout the Republic moreover Rome shows a great dislike for fiat money, making time and again a desperate effort to keep bimetallism[6] intact and her coins in both metals at par value. Finally the bronze *as,* being a crudely molded piece, could very readily have been counterfeited and would doubtless have been if the metal in it had represented only half of its market value, for it must be remembered that the *as* was

[4] Haeberlin, *op. cit.* p. 24; Evans, *Horsemen of Tarentum,* p. 138; Regling, *Klio,* VI, p. 519.

[5] Haeberlin, *op. cit.,* p. 44, interprets it as an attempt to relieve debtors and therefore ascribes it to the year 286 B.C. when the plebeians seceded to the Janiculan hill. This seems to me wholly unacceptable. In view of the rise of commodity prices at the end of the fourth century, the date should not be placed later than 300 B.C.

[6] Especially in the most important currency reforms of 312, 269 and 217 B.C.

still a rather valuable coin, worth a third of a double drachm or a tenth the price of a sheep. A far more reasonable explanation seems to be that bronze like all other commodities was rapidly rising in value throughout the Mediterranean world because of the enormous treasures of silver and gold that Alexander the Great had recently found in the Orient and set into circulation. The price lists that can be made from the temple records of Delos[7] for the fourth and third centuries B.C. demonstrate the fact that during the half century that followed Alexander's conquests practically all commodities more than doubled in price. And while we have no record of the price of raw copper, there is no reason to suppose that it was an exception. The reduction in the size of the bronze *as* seems therefore due solely to a rise in the price of copper.[8]

However this new coinage of half-pound asses, brought out about 300 B.C., was by no means permanent. The

[7] Reinach, *L'histoire par les monnaies;* Glotz, *Le prix des denrées à Délos* in *Jour. des Savants,* 1913, an article based upon the mass of material published in *Inscriptiones Graecae,* XI, 2, in 1912.

[8] The effort to preserve bimetallism by changing the weight of one of the coins had been tried repeatedly in Greece. The coinage of Agathocles of Syracuse furnishes a good example of about the same date. In order to meet the fall of price in gold from 15:1 to 12:1, he reduced his silver coins from ten to eight litrae. Modern states have acted similarly. In 1864 France reduced her fractional coins because of the influx of gold from Californian mines; three years later she reduced the two-franc piece to the position of token-money, and presently abandoned bimetallism completely. Had France waited a few years till silver was discovered in Nevada the process might have been reversed.

successive issues of the first thirty years of the third century provided coins of constantly diminishing weight until the *as* fell to two ounces, *i.e.*, a sixth of a pound. Again the arguments just given preclude the assumption that the bronze coin was giving way to silver monometallism. It may seem drastic to posit a threefold rise in the value of copper in the first thirty years of the third century, but we have recently seen an equally startling rise[9] in the price of copper produced in two years by causes not wholly unlike those then prevailing. The condition of the copper market was indeed peculiar. The steady demand for the metals during the long Samnite War was doubtless draining the market, since copper was then more extensively used in wagons, ships, war-engines, harnesses, shields, etc., than later. But the real crisis came in 296 when the Samnites secured the support of the Gauls and Etruscans. Then Rome's supply which had come almost entirely from Northern Etruria must have been completely cut off. During the next year Rome cleared the North of enemies, but the source of supply again fell into the enemies' hands between 285 and 280, while Rome's needs for the metal were increasing by the extension of the war north and south. Under such conditions a threefold rise in the price is less strange than what happened to the metal in 1914–1916 A.D.

Pliny[10] has by chance preserved the odd item of information that the Romans in 280 B.C. when they captured

[9] Copper in the American market rose from 12 cents per lb. in 1914, to 36 cents in 1916. In 1919 it bears about the same ratio to silver as it did in 1914.

[10] *Hist. Nat.*, XXXIV, 34.

the Etruscan city of Volsinii carried away as booty some two thousand bronze statues and he cites a Greek author who joked about Rome's making wars for love of art. But there may have been more than mere humor in the remark. Doubtless many of those portrait busts went into the furnace to compensate for the deprivations of years. When in 269 Rome reformed her coinage on a new system she was able to restore the old ratio of 120:1 which had for some years fallen to 20:1. This was of course made possible by the re-establishment of peace-prices throughout Italy and by the acquisition of large quantities of metal in her capture of Volsinii and Vulci in 280. And the process was doubtless aided by the fact that Greek trade and industry had now so far assimilated the extra currency of the last century that the prices of commodities had now generally fallen back to those prevailing before Alexander's conquest.

After the wars with the Samnites and Pyrrhus had ended in complete victory in 272 Rome found herself the dominant power of a confederation that included the whole of Italy, and yet her currency consisted of a Greek silver coin minted for her by a dependency and a crudely molded bronze coin issued at home. Obviously the time had arrived for a more adequate and dignified system. In 269 a thoroughgoing reform was undertaken, the old coinage was discontinued, and the denarial system was instituted at Rome and at several branch mints throughout Italy. This new currency was conceived on sound ideas, adequately managed, and soon gained respect throughout the Mediterranean basin. In the first place

the new Roman pound (the Attic pound of 327 grams) which had gained favor in Central Italy was now substituted as a standard of weight for the Oscan pound which was about one sixth lighter. It was regularly divided into 12 ounces, or 288 scruples. The two-ounce bronze *as* (48 scruples) which had been found a convenient size was adopted permanently into the new system. However since peace-prices had restored to 1:120 the ratio between bronze and silver this new piece was worth only about one sixth of the war-time *as* of two ounces. For a standard silver coin a four-scruple piece, the denarius, was adopted. This was the size of the Athenian drachm and therefore somewhat heavier than the Romano-Campanian drachm (4.55 grams instead of 3.80–). The adoption of so large a coin would obviously entail a loss to Rome in South-Italian trade if merchants began to exchange the Greek and the Roman silver at par, for the cheaper money of the South might threaten to drive the larger pieces into the melting pot. But Rome apparently decided to take the risk for the sake of a sound and respected currency. At best Rome might be strong enough financially to win in the competition;[11] at worst she might use political pressure to suppress the mints of the south. Whether she used this power we are not told; at any rate

[11] To tide over the season of confusion, and doubtless to call attention to the superior value of the denarius, Rome continued to issue from the Capuan and some other southern branch-mints silver coins of the old weight (3 and 6 scruples) which were called *victoriati*. They probably exchanged with the denarius on the basis of 4 to 3, but they bore no mark of value and were treated as Pliny says *mercis loco*.

the southern silver mints closed one by one during the century probably from financial incapacity to compete. Since the ratio of exchange between the metals was now 1 : 120, the four-scruple silver coin was worth ten of the 48-scruple bronze asses and the silver coin was accordingly called the *denasius* which in time emerged as *denarius*. A one-scruple piece of silver was also issued which was of course worth two and one half asses and therefore called a *sestertius*. Various fractions of the bronze *as* were also struck.

Strange to say, later Roman writers who lived when the Emperors were alloying and debasing the coinage of their day so misunderstood this great reform as to suppose that the adoption of the two-ounce *as* was an act of audacious debasement. Pliny[12] indeed goes so far as to say: "Thus a profit of five-sixths was made and debts were cancelled to that extent." Nothing of course could be farther from the truth. In the new system the government issued both silver and bronze at market value, and, if anything, it sustained a loss by adopting a denarius which was heavier than the drachm-pieces with which it was likely to compete. As for debts these were probably calculated in silver and would naturally be computed in the intrinsic values of the respective issues. The fact that the new bronze *as* was only one sixth of a pound could therefore do no harm. The word *as* simply meant a "unit," and the Roman law

[12] Pliny, XXXIII, 44–45; cf. Festus (Lindsay), 470, 87, 468. The last reference in particular which ascribes the change to the Second Punic War shows that Festus was capable of serious blunders. Apparently there was no trustworthy history of coinage available in the days of Pliny and Festus.

courts were too respectful of property rights to be misled by a mere word into permitting the repudiation of debts. Those who had fallen into debt in terms of the old drachm and asses could readily be made to compute it in terms of the new denarii and asses; the process could hardly have been more difficult than when after our Revolution old contracts stipulated in pounds sterling had to be settled in terms of dollars and cents.

The charge of debasement came so natural to historians who had endured the evils of imperial currency that they employed it to account for almost every change in the Republican coinage. As a matter of fact while many autocrats both Greek and Roman debased their coins for the sake of profit, Greek and Latin republics never did except under very strong pressure. The Roman people at this time had little to gain from such an attempt. The neighboring states would at once have discovered the deception and have refused to accept the coins at face value; while at home the people who received the currency from the state as pay for army service—a large proportion of the citizens—for war materials, and for public contracts, were also members of the assembly that had to authorize such an act. They obviously were not likely to favor it. The situation in the Empire when alloying became prevalent was wholly different. Then the largest debtor, the one who had to pay the vast sums of the state budget, was an autocrat and could profit temporarily by paying those sums in cheapened money. Furthermore since the Empire extended over most of the world of commerce, almost all the trade was "domestic,"

and it mattered little whether or not the rest of the world refused to accept the imperial coin. The situation resembled that of fourteenth century England whose kings could gradually reduce the so-called pound to one fourth its size because it had a monopoly in trade, then largely domestic. With the growth of foreign trade in Elizabeth's time the coin came into competition with foreign issues and then arbitrary reductions ceased. It is well therefore to scrutinize all statements charging a reduction for fraudulent purposes during the Republic. Most of them are due to misattribution of a later evil. Only one or at most two early instances of such an attempt seem now to be probable.

The most interesting of all of Rome's experiments in finance is perhaps the act of 217 B.C. by which the *as* was reduced to one ounce,[13] the silver denarius pronounced worth sixteen asses instead of ten, and gold issued in pieces worth 20, 40, and 60 sesterces. Pliny's[14]

[13] Pliny, XXXIII, 45; Festus (Lindsay), 470. It seems likely that Pliny in referring the law to the dictatorship of Fabius is to be preferred to Festus who ascribes the law to Flaminius. The latter was slain at the battle of Trasimene lake which brought on the crisis. Later authors who assumed that the law had a populistic purpose would naturally hit upon Flaminius as the proposer. Zonares, VIII, 26, seems also to believe that the law was intended to relieve debtors.

[14] Gold had been issued once by the Romano-Campanian mint before the denarial system. That was also at a critical moment, perhaps when the treaty was made with Carthage in the Pyrrhic war, 279 B.C. The coin represents the act of striking a treaty. Historians usually assume that this coin was issued about 300–290, since its value (4 scruples of gold = 30 asses) seems to coin-

statement reads characteristically: "When Hannibal was pressing the Romans hard in the dictatorship of Fabius Maximus, the *as* was reduced to one ounce and it was decided that the denarius should exchange for 16 asses, the quinarius for eight, the sestertius for four. Thus the state made a gain of a half, but in paying military wages one denarius was still to be given for ten asses." This measure is surprising if it was meant, as Pliny says, to repudiate state debts by one-half, since Fabius Maximus was of all men a sound aristocrat. Festus attributes the law to the democratic leader Flaminius, implying that the measure was of a revolutionary nature and meant to help individual debtors. Apparently authorities were at odds for an explanation, and well they might be.

Let us consider what the law effected. It was passed in 217 after the Roman armies had been almost completely annihilated by Hannibal. Huge armies had to be raised at once, Rome had to be fortified, fleets had to be built, there was need for very large issues of currency, and Hannibal held Etruria, the source of copper, while currency as always happens in times of invasion was disappearing into hiding places. It does not seem likely that the law was meant to relieve private debtors, for the state had recently allotted the Ager Gallicus. Nor is it easy to believe that the state passed that law for the sake of repudiating its obligations, since the state had no debts at that time, it explicity raised the soldier's pay to cover

cide with the libral *as*. But if we are right in holding that copper rose in value so that the new semilibral *as* was worth as much as the old libral *as* this argument falls, and the gold coin may readily be assigned to the time of the Pyrrhic war.

the difference between the old and the new coin, and on all the contracts necessitated by the defeat it would in any case have to pay at market prices. We must conclude that Pliny and Festus are again projecting late theories. What Fabius was attempting to do was clearly to increase the volume of currency by every means possible. Of course issuing two small coins instead of one large one could not materially aid, but the new coinage did more than that. It recognized the war-time appreciation of copper and thus saved the amount of this appreciation for the treasury. The ratio of exchange was now 112:1, hence an ounce of bronze was worth about one-sixteenth of a four-gram silver coin, the denarius therefore was slightly reduced in size and pronounced, as indeed it was, worth 16 of the asses. There was no deception in either issue; both were meant to pass at market value, and as the state raised the pay of soldiers to conform to the new coin, the courts doubtless saw to it that all old contracts were equitably settled by the proper computation. The advantages to the state were numerous. In the first place, now that Rome had to buy war supplies abroad, she had a silver coin nearer the size of the Carthaginian and the more prevalent Greek drachm, and this effected a saving; then as noted above, the act took advantage of the appreciation in the price of copper. Finally by issuing smaller coins the state enticed back to the mint the old currency which was disappearing into hiding. The sole disadvantage, beyond the labor entailed, was that henceforth the denarius was not equated with ten asses as its name implied but with sixteen, thus de-

stroying the convenient decimal system of the earlier coinage. It is probably for this reason that business men began to calculate their accounts in sesterces, now worth four asses.

The gold coins issued at this same time were the first real Roman issues in that metal. Since the one-scruple piece was marked XX (sesterces) and the new silver sesterces weighed about five-sixths of a scruple the rate of exchange must have been about 1 : 16⅔. This rate seems high, for in Greece during this same period gold generally passed at the rate of 1 : 12. When we consider however that Italy was poor in gold, that the purpose of the issue was to provide as much currency as possible at a time of severest stress, we cannot but conclude that the rate was moderate.

It is of course unfortunate that the decimal system was thus abandoned, but it is difficult to see how in such a crisis the state without the aid of a well developed credit system could have proceeded more wisely to keep its metal in circulation, to expand its currency to meet enormous demands, and still to hold its issues in three metals at market rates when the exigencies of the war had raised the commodity price of copper.

The system adopted in 217 remained in vogue into the Empire except that the gold coins were soon withdrawn from circulation and the issue of bronze asses was suspended from time to time, and the weight of the *as* was during the Social war reduced to half an ounce. What purpose governed this last reduction cannot be deter-

mined, since we do not know the market value of copper[15] at the time.

Rome's currency system was of course not wholly satisfactory. The necessity of frequently changing the size of the *as* because of the fluctuations in the market price of copper must have caused trouble in business; but gold was too scarce at least in the earlier day to trust as a standard, and its adoption might have led to worse evils. Possibly a silver monometallism would have been better, but it is doubtful whether the hard-headed Roman populace could have been made to accept bronze coins of fictitious value any sooner than they did. A second deficiency was the irregular way in which money was put into circulation. Since a free and unlimited coinage of silver and copper was out of the question, the size of the issues was determined by the consuls and senate, and these could hardly have had any good criterion for judging when more currency was needed. Doubtless many a financial crisis was due to the irregularity of the issues, especially as the banking and credit system developed very slowly. Yet there was perhaps a flexibility which there might not have been if Rome, like modern states, had permitted the chance output of gold mines to determine her per capita circulation.

At any rate the history of three centuries of efforts in yoking together two such unmanageable metals as bronze and silver, in adapting the currency to the needs of a rapidly expanding empire, and in keeping it withal sound

[15] See Grenfell and Hunt, *Tebtunis papyri*, I, Append. 2, and Mitteis-Wilcken, *Chrestomatie*, I, lxiv, for conflicting theories.

and respected is very creditable to the Republican statesmen. The three centuries of selfish manipulation by the autocratic emperors that followed brought the coins down to less than one fiftieth of their one-time value.

Desirable as it would be, it seems impracticable to estimate the value of Roman money in terms of modern standards. To be sure if we might attempt a purely statistical calculation without raising the question of what ought to enter into the cost of living, we might draw up a brief though wholly inadequate comparative list of Roman and modern commodity prices, and this would show that gold bought considerably more of the poor man's necessities then than it has in recent years. The gold in Cicero's day bought[16] twice as much wheat, rye, and cheese, about the same amount of salt-fish, three to five times as much of the common vegetables, and six times as much dried beans—these were the poor man's staples—as it did in 1910—to adopt a year of normal prices. Cheap wine and oil, both necessities of his diet, could be had at about one-third the amount that the modern laborer at Rome had to pay before the war; shoes and coarse wool were about one-fourth the price.

In the case of metals, gold bought somewhat less silver —the rate of exchange varying from 12:1 to 16:1—25 per cent. more copper, but only about one-fifth as much iron. The rich man had his ordinary labor at about one-tenth the modern price, but he had to have much more of it. Beef, pork, ham, mutton, and fowl, which the poor

[16] For prices see chapter xv, and Schulz, *Sokrates*, 1914, 75.

man could not afford, were sold at about one-half of the prices current in 1910. The better grades of wine and oil, and imported table delicacies of all kinds do not seem to have been cheap. House rents, for which we have few statistics, varied then as now according to other considerations than capital cost. Cicero's house in the exclusive section of Rome was far from new, but it cost 3,500,000 sesterces (about $150,000); Sulla when a poor but respectable youth had rented a flat for $150 a year, and there were apparently miserable rooms to be had for workmen at a dollar per month.

This enumeration of course does not lead us far, but it sums up the material on which historians arrive at the convenient and statistically true, though woefully misleading, generalization that gold in Cicero's day had about three times the purchasing value that it had at the beginning of our century. This statement should not be made without immediate modification. In the first place Rome's was not a gold standard; if the small amount of gold then available had also been called upon to serve as the basis of currency its price would certainly have risen very much. Hence a comparison is at once vitiated for any estimate of the currency. Moreover given commodities do not hold the same relative position in an ancient as in a modern list of utilities. Iron for instance was ordinarily of far less consequence in ancient life than it is to-day, and it was very costly. Labor which was a larger item to those who could employ it was shockingly cheap. Finally prices were less stable and varied more than now according to the distance of the place of pro-

duction from centers of trade, while wars and famines interfered with prices more frequently, and relief in times of stress was apt to be dilatory. For instance, some extremely low prices are quoted by Polybius as prevailing in Spain and Cisalpine Gaul. These however by no means represent normal rates, but rather conditions in frontier agricultural lands where a primitive self-sufficing economy still persisted, where commerce had not yet regularly entered to take the surplus product, and where currency was seldom seen.

It is also well to keep in mind that slavery placed so wide a chasm between the upper and lower classes of Rome that hardly a single necessity of a workman's budget would recur in the list of the wealthy man's necessities. Even bread, which must have taken fifty per cent. of a laborer's salary if he had a family of four to provide for, could hardly have constituted a half of one per cent. of Cicero's annual expenses. And this leads to the greatest difficulty in attempting a comparison of values. While it is true that the laborer's denarius bought two or three times as many bare necessities as in 1910, it is true largely because he had to confine himself to a few of the cheapest articles that must be had if he were to keep alive. It would not have been true if he had attempted to enjoy the variety of food, clothing, and the amenities that the modern man must have, for then he would quickly have included a grade of articles that were as expensive as now. In the case of the wealthy man it is by no means accurate to say that gold bought two or three times as much as now, for he needed many articles and much serv-

ice for efficient existence that because of cumbersome transportation and lack of machinery were very costly. Cicero's journeys on official business by private carriage, yachts, and hand-borne litters, his mail which had to be sent by private couriers, his skilled stenographers and copyists, his private attendants who were needed in the lack of street guards, were necessities and very expensive ones. His ground rent in the section of Rome where he must live does not seem cheap to the modern Roman. His furniture, plate and house decorations were doubtless as heavy an item as they would be to-day because the application of slow hand-labor, even though the labor was cheap, made them expensive. The sum of 100,000 sesterces (about $4,000) which he had to expend annually for his son's education at Athens does not really represent modern amenities, conveniences and luxuries amounting to three times $4,000. The need of having individual teachers in a day when there were no organized universities, of employing personal attendants, the necessity of food, clothing, and apartments befitting his position, the cost of travel, of manuscript books, etc., removed him from the market where cheap necessities could be had. For Cicero a pound of Roman gold probably bought little if any more than its present day equivalent.

CHAPTER VI

The Establishment of the Plantation

In 264 B.C. Rome came to the parting of the ways, and with characteristic enterprise chose the way that led into deep forests without signposts. For the first time she acquired non-Italian territory in contesting the possession of Sicily with Carthage. The real significance of the step rests in the fact that she found and adopted in Sicily an Oriental theory of sovereignty[1] which in time completely changed her political ideals, and, permeating her code, survived in still recognizable forms into modern times to justify those crude types of imperialism that have lately brought the world into one vast battlefield. In the past Rome had built up a federation of autonomous states which had surrendered their political hegemony without the payment of a tribute. In Sicily, she found that the overlord, Carthage, claimed to be owner of the soil, and that the holders were tenants who paid rent to and held possession at the good will of the sovereign power which exercised *dominium in solo provinciali.* This profitable theory, which permitted the conqueror to exact heavy tribute, Carthage and the Syracusan tyrant, Hiero, had learned from the kings of Egypt and Syria who had in-

[1] Rostowzew, *Studien zur Gesch. des Röm. Kolonates,* 229–40, explains brilliantly the intricacies of the oriental method as applied in Sicily. I have attempted to sketch the political aspects of Rome's conquest of Sicily in *Roman Imperialism,* pp. 88 ff.

herited it from Alexander, as he in his day had adopted it together with his theory of divine rights from the Persian régime. By virtue of it the Carthaginians had imposed in Sicily tithes on grain and fifths on various other products of the soil, while the lands of which they had taken complete possession they rented out to the highest bidder or cultivated as state's domain. Thus a large part of Sicily had been treated as public land to be exploited to the advantage of the conqueror.

How far thoughts of transferring this profitable possession to themselves counted with the Romans in inducing them to enter the dangerous hazards of a war with Carthage, we can hardly decide. Polybius states that when the senate hesitated to act, the chauvinists urged the popular assembly to consider the material advantages that would follow, and perhaps it was the tribute which they had in mind. The senate, it must be added, however, acted with reluctance and for two years sent such small forces to the front, that there was apparently on their part no immediate intention of conquering a new province: to them it seemed enough if Messana were protected so that the straits might be kept out of Carthaginian control.

Those who looked for material advantages from a war were never more deluded. A constant struggle of twenty-four years ensued in which Rome drained her resources to the last drop. Every available man was used on land or sea through interminable campaigns till her fields went to waste and debts outstripped the returns of scanty crops. To keep up a fair quota for her army

Rome at the end of the war admitted into citizenship all the Sabine and Picentine people, running the imaginary walls of her city-state across Italy to the Adriatic.

Rome won in the end, and took over Carthaginian Sicily with most of the lucrative dispositions of the former owner, but she did not for the present evict any of the landholders nor send any colony to the island. The reasons are patent. The drain upon her population had been so severe that it would have been no easy matter to find volunteers for a colony so far distant. Nor could the state have made use of a military colony of the usual type. Nothing but a legion of professional soldiers would serve the purpose since here the conquered were to be kept in subjection as tributaries whether or not they wished it.

The annual tribute that Rome collected amounted to about one million bushels of wheat, which was brought to Rome and sold on the market for the account of the treasury. Since this amount was probably enough to supply at least half the needs of the city it would be interesting to know what the farmers of the vicinity thought of this competition of the state with their market. Unfortunately our meager sources have left no apposite comment. It is impossible to believe that if the landowners had seriously objected the urban tribes, being only four, could have out-voted the rural tribes in favor of cheap grain. Since the exaction of tribute in kind continued and so far as we know no effort was made to divert the produce to other markets we may conclude that much grain was actually needed. If so, conditions in Latium

had already shifted toward the position they held in Cato's day when grain culture had given way largely to pasturage, wine and olive-growing. The process, in so far as it was not complete, must of course have been accelerated by the deluge of Sicilian wheat. From that time one province after another was exploited to feed the growing population of the city, and central Italy could never again win the position of a cereal-producing region.

In 232 Flaminius, a bold precursor of the Gracchi, reasserted the doctrine, adopted after the fall of Veii, that public lands should be employed for purposes of social and economic amelioration rather than rented, as the senate desired, to endow the governmental treasury. The land in question was the Ager Gallicus which Rome took from the Senones when in 285 they attempted to repeat the memorable raid of a century earlier. At that time the land had been left undivided for want of takers, and had probably been leased in large lots to grazers. As the city grew, however, senators who were in general the class that could carry such investments had naturally found the leases profitable. But their arguments against Flaminius were not wholly based upon personal considerations. As experienced administrators they saw of course the advantages to the state of having a steady and reliable source of income for the treasury in addition to the real-estate tax, and they could question with sincerity the wisdom of a doctrine whose implications would inevitably phrase themselves in the theory that the state owed all its citizens a means of livelihood. How severe the demands for new distributions may have been we

cannot conjecture, but it is quite possible that in the years of casting up of accounts after the long Punic war, many peasants lost their properties in the mortgages incurred while they had been in foreign service. At any rate the contest was a bitter one before Flaminius finally secured a majority vote in the tribal assembly for his proposal. Polybius,[2] writing later when the city was drifting toward the Gracchan maelstrom, and adopting the interpretation of the law as he found it in the aristocratic writer, Fabius, cynically remarks that this was the beginning of Rome's down-fall, and he adds, what seems to be an echo of senatorial invective, that it was the cause of the Gallic wars of the Po valley that followed. Later writers generally adopted this verdict, for the effective historians of the republic who have put the stamp of their own bias upon republican history were nearly all members of the aristocracy. And this is the reason why the whole career of this original though over-impetuous leader[3] is everywhere

[2] Polybius, II, 21, 7; the sentence probably belongs to a late revision of his work by the author. See also Cicero, *Cato Maj.* 11, and *Brut.* 57. The tract is sometimes called *Ager Gallicus et Picenus* because the Picentines seem to have possessed it before the Gallic invasion. On the law of Flaminius, see Cardinali, *Studi Graccani,* and Münzer *art. Flaminius* in *Pauly-Wissowa.*

[3] It was Flaminius who built the via Flaminia, which served both as a military road towards Gaul, and a highway of the colonists to Rome. The man's interest in industrial questions is revealed in his support of the *lex Metilia de fullonibus* regulating the fullers' gilds (Pliny, XXXV, 197) and in his approval of the Claudian law which prevented senators from engaging actively in foreign commerce. The second great playground of Rome, the Circus Flaminius, built by him, attests his interest in the urban populace.

stained with whimsical accusations. An important immediate result of this law was that Rome again turned her surplus energies to land development, although the opening of a rich province outside of Italy should have attracted attention to the profits of commerce and industry.[4]

The Second Punic War which was fought on Italian soil wrought terrible havoc upon the chief industry of the people and thereby accelerated the processes that we have already noticed. For more than twelve years the battle lines swept back and forth over the villages and fields of central and southern Italy. Cities surrendered to the seemingly stronger contestant for self-protection, only to be sacked in vengeance when captured by the other. Whatever contestant retreated, grainfields were burned for military reasons, vineyards and orchards cut, and the cattle driven off. The inhabitants who escaped scattered to the four winds, many abandoning Italy permanently for Greece. Many of the famous cities of Magna Graecia came out of the war with a few hundred famine-ridden weaklings huddling together along the ruins of the city walls.[5]

[4] Since Claudius and Flaminius saw fit to prevent senators from engaging in maritime commerce, we may infer that some at least were entering this field at the time.

[5] The vigorous part played in the Second Punic War by Marseilles suggests the inference that economic causes were far more important in bringing on the conflict than Livy supposed. Marseilles had had many trading-posts on the coast of Spain whither her merchants had attracted the products of the whole peninsula. Obviously, when Hamilcar and Hannibal marched northward from New Carthage cross-cutting all the old trade routes Marseilles found that Spanish products began to flow

After the war, came problems of reconstruction which were of course far beyond the resources of the enfeebled and debt-burdened state. The few men who could be induced to consider colonies were gathered together and sent to frontiers demanding immediate protection. Thus Cremona and Placentia were repeopled as a bulwark against the Gauls, and a few hundred citizens were found for each of several ruined harbors of the southern coast, now exposed to raids and invasions.[6] Even for these southern points the requisite three hundred citizens could not always be supplied, so that Thurii and Vibo were settled as Latin colonies, and non-Romans were also included in some of the others.

Vast areas of devastated lands at less vital points could obviously not be cared for at present. These the state took possession of, partly because they were without claimants, partly, in accordance with the new theory of sovereignty recently adopted in Sicily, because they were

southward toward the Punic ports rather than eastward. And since Carthage whenever possible monopolized the commerce of her possessions the success of Carthage in Spain would obviously result in the complete exclusion of Marseilles. It is therefore very likely that it was Marseilles that first tried to check the Carthaginians, and failing this, did her utmost to excite the Roman Senate to activity in her favor by exaggerating the reports of Punic designs against Rome. The Ebro treaty and the Saguntine alliance may well be the results of Massiliot diplomacy. Cf. Frank, *Roman Imperialism,* 121 ff.

[6] The maritime colonies, planted apparently in view of a possible invasion of Antiochus in conjunction with Hannibal, were Sipontum, Croton, Tempsa, Buxentum, Salernum, Puteoli, Liternum, Volturnum, Thurii and Vibo. Citizens of Fregellae are known to have shared in the colonization.

forfeited in title to the conqueror. What was to be done with these vast areas, aggregating a total of perhaps two million acres,[7] at least half of which was arable? Obviously the state pursued what seemed to be a reasonable policy in offering it in large lease-holds to Romans who had the capital requisite to make use of it. By this method at least there was some hope of redeeming the land, for with the scarcity of settlers and the lack of capital available for buying it outright, the only other alternative would have been continued desolation and consequent lawlessness and brigandage. Under the law public lands could be thus leased in blocks of five hundred jugera per holder, or a thousand jugera for citizens having two children. Intensive cultivation to be sure was out of the question in such blocks, for labor was scarce and with the means of transportation then available grain could not profitably find good markets. But the land could at least be turned into ranches since cattle raising might be conducted with the aid of a few slaves and the product be brought to market with little difficulty. Even on these terms much land found no renters, and the censor's bureau seems, pardonably if not wisely, to have permitted enterprising renters to exceed their allotments of the legal five hundred jugera if they so desired, and in many cases also to have connived when such renters let their cattle graze on less desirable lands lying unleased in the vicinity. Thus large tracts of public lands which for the time being were not otherwise of any service, came in time to be enclosed in the original holdings without

[7] Beloch, *Bevölkerung der Griech. Röm. Welt.*

good and legal title. It was a procedure which has found many parallels in the land-record offices of our own Western states. Here as there the practice was not only excused but even encouraged by public opinion, since those nearby saw nothing but advantage accruing from what is popularly called the "development of natural resources." Later after the population had grown and prospective settlers were clamoring for new allotments, a reaction set in demanding the "conservation of natural resources," and some of the officials were thrown into prison for permitting what public opinion had heartily approved of.

Needless to say, when Rome recovered from the dire effects of the war, when the population began once more to increase and fill up the interstices, though this required more than one generation, it was found that the state's hasty liberality had been imprudent in its failure to impose due restrictions. Ranches had spread over lands fit for agriculture; slaves imported from the East were thriving where citizen-soldiers should be growing up for service in time of need;[8] territory that might have been available for colonization by Rome's overflow of children was found occupied, and capitalistic farming, which even under normal conditions outstrips small-lot culture, had been entrenched by a state act. After such leaseholders had established a further equity on unreclaimed possessions by many investments and improvements, a demand

[8] Appian, *Bell. Civ.* I, 7, states that the squatters preferred slave to free labor both because slaves could not be levied for the wars and because there was profit in their offspring.

on the part of the tribal assembly for a return to the theory of Flaminius might well precipitate a very dangerous revolution. The germs of the Gracchan sedition were inherent in the inadequate reconstruction policy adopted after the Punic war.

A brief account of the agricultural methods in use upon a moderate-sized plantation may serve not only to describe Rome's chief industry but to illustrate an ordinary Roman's methods of dealing with practical problems. We are fairly well informed about agricultural practices by the instructive, if garbled, treatise written by Cato in the second century B.C., the somewhat longer work written by Varro a century later, and the full and charming treatise of Columella composed in the first century A.D. Valuable data are also found in Vergil's Georgics and in Pliny's encyclopaedia. Since the orthodox system was already in vogue in Cato's day, and the later works reveal merely an extension of the system with a few changes adapted to new needs we may, if some caution is used, supplement Cato's account by use of the two later authors.

In speaking of the plantation system in Italy we do not mean to imply an approach to the capitalistic methods found in the "bonanza" wheat-farming of our Western states, where success has depended upon the extensive use of labor-saving machinery capable of being employed upon level areas of rockless loam. Italian agriculture, even when specializing in cereals, continued for obvious reasons to use the methods of intensive farming. In the first place even before Cato's day the need for fertilizing had become imperative in central Italy, and manure

was not to be secured in unlimited quantities nor applied without much labor. Secondly central Italy has little land suited to the use of machinery. When the landed proprietors of Latium to-day employ large gangs of laboring men, women, and children to spade, hoe, and cradle the grain by hand it is not wholly due to lack of intelligence and capital. The wooden plow, the exact counterpart of the one described by Vergil is still used in various parts of the Campagna, where there is need of a modest implement that is willing to dodge stones and slip harmlessly along the surface if the soil is thin. Such plows cannot turn the soil; hence cross-plowing, hand work with the mattock, and reharrowing are necessary. All this means that in the several processes of soil-preparation an abundance of laborers was required, and since they were at hand they were also used for the harvest and the threshing, where machinery might have been invented to do the work more quickly. In a word the methods employed on the grain plantations were quite the same as those of the small plot; the difference between the two lay largely in the consequences to society in that latifundia substituted a herd of slaves for citizen farmers.

The typical villa was a large rambling structure containing granaries, wine presses, and vats in one part, the working quarters of the slaves in the other, and a second story comfortably fitted out to receive the master when he had time enough from affairs of state to take his brief vacations in the country. The management of the estate, which probably consisted of a compact farm of from 200 to 300 acres, was entrusted to a reliable slave "vilicus"

and his wife. If ordinary farming was attempted, a troup of forty or fifty slaves was not too large. The farmer usually specialized on one crop, the purpose being to produce a handsome clear profit for the owner's account from a large bulk of one product, besides devoting some portion of the ground to various side products which would keep the slaves alive and meet the simpler needs of the villa.

A typical wheat plantation would engage a large band of slaves. In the autumn there would be plowing[9] and cross plowing, a slow process, for oxen walk very leisurely and insist upon resting frequently; but the ancient thought as did Walter of Henley, that the ox was preferable to the horse, being "mannes meat when dead while the horse was carrion." Indeed cattle-raising produced milk and cheese and beef besides draft animals for the plow, and if the beast plodded slowly, slaves' time was after all not expensive. A second or even a third plowing was necessary with the poor instrument used, and if the soil was a meadow just broken the turf had to be crushed with a mattock wielded by hand. Then the land was contoured[10] as it still is to-day, with gullies about twelve feet apart in order to keep the roots out of standing water during the long rainy season of winter, which threatened to rot the grain. All this required slow hand labor. In the spring when the rains ceased and the

[9] Plowing: *Columella,* II, 4, 3; Fairfax Harrison, *The Crooked Plow, Class. Jour.* XI, 323.

[10] Contours: Varro, *R. R.* I, 29 (quo pluvia aqua delabatur); Col. II, 4, 8; 8, 3.

scorching Italian sun began to bake the ground, bands of slaves came out to weed and to hack[11] the ground between the plants so as to break up the capillarity near the surface and prevent the subsoil moisture needed for the roots during the dry month before harvest from evaporating. At harvest, as is often done to-day, the tops were cradled and hauled to the granary first, and then the rest of the stalk at a second cutting. The straw served as thatch for the slaves' huts, as litter for the cattle (with an arrière pensée on the compost heap) and also to some extent as fodder. Finally the threshing was done by means of flail and winnow. The slaves had to live, and might as well be kept busy.

The labor of fertilizing[12] the field could of course not be neglected. So important was this item that the keeping of cattle was largely justified on the score of the manure; one head provided for half an acre of ground. In the Republic no chemical fertilizers were known, but in the Empire the use of chalk and lime was introduced from Gaul.

To provide the running expenses of the villa, to keep the slaves occupied between regular tasks, and to make use of waste products, some subsidiary crops might be

[11] The hoeing was done two or three times: Cato, *R. R.* 37, 5; Pliny, XVIII, 184; Col. II, 11, 2. The Italians continue the practice, but I have never seen it done in America in the case of wheat.

[12] Fertilizing. See *art. Düngung* in *Pauly-Wissowa;* The Greeks and Romans were skilful in the use of nitrogen-fixing legumes and clovers; Cato, 37, 2; Columella, II, 15; XI, 2, 44; Pliny, XVIII, 134; Varro, I, 23, 3; Alfalfa came to be thoroughly appreciated in the early Empire: Columella, II, X, 25.

cultivated. A row of willows[13] in the marsh supplied twigs from which slaves wove baskets during rainy weather; a grove of elm and poplars furnished wood for the kitchen fire, for the villa's pottery where wine and wheat jars were made (volcanic alluvium makes fair redware), for the lime kiln, and provided leaves for the cattle. The slaves had of course a garden plot for cabbages, turnips, and other cheap vegetables. Pigs might be kept if oaks were near; they grew rather thin on mere kitchen leavings, weeds, and roots, and to bring a good price they needed a modicum of acorns. Sheep cropped the rough land and the olive orchard, and produced work at the loom for the slave women who were too old for heavier work. If the master was enterprising he might raise fowl also. Varro[14] knew a farmer who sold home-grown poultry and fish for $25,000 a year, and another who raised thrushes by the thousand which brought him fifty cents a piece. Pea-hens were worth several dollars each and brought good profits. In general, however, the

[13] Cato, I, 7, gives his preferences of products on the farm in the following order: (1) vinea (if the quality is good), (2) hortus (if one can irrigate), (3) salictum—apparently for basketry in fruit-bearing countries, (4) oletum, (5) pratum, apparently for fodder, (6) grain, (7) timber for fire wood, (8) arbustum—probably a combination of orchard and garden, (9) oak forest for timber and swine-raising. Pliny however (18, 29) quotes Cato as advocating cattle raising above all. Since the work of Cato which we have refers especially to agriculture near Campania, the passage quoted by Pliny may have occurred in some lost volume which had reference to farming in Latium or the Sabine hills.

[14] Varro, *R. R.* III, 2, 14–17.

landlord insisted upon the use of his land for the particular purpose to which it was adapted. A self-sufficing "home economy" did not satisfy the capitalist, who looked upon his farm not as a home but a source of income. If it suited his ledger best he was even willing to send the slaves' food and clothing[15] out from the city to his farm.

Wheat-raising could of course not be continued for several successive years without exhausting the soil; hence when it was the staple product, rotation of crops relieved the strain. The portion used for wheat one year would be sown with rye, barley, or oats the next,[16] and every third or fourth year beans, peas, alfalfa or some other leguminous crop that brought back nitrogen to the soil was substituted. Sometimes green crops of this kind were plowed under to enrich the soil, or instead the ground might be allowed to stand fallow for a year as rough pasture (seeding was too expensive), and the sheep turned in to graze.

It must not be supposed that any large portion of the western Italian slopes continued cereal culture regularly into the first century. Obviously even with cheap slave labor, when provincial dues came into Rome in the form of sea-borne grain, expenses often threatened to overbalance receipts. When in Augustus' day Dionysius came to Rome he says he found the whole country a

[15] Cato, 135. Many of the things that slaves could make at the villa, such as rakes, mattocks, wine jars, baskets (Varro, I, 22) and even slaves' clothing, Cato apparently bought in the city.

[16] Pliny, *H. N.* XVIII, 187; Columella, II, 9, 4, and II, 12, 7–9.

garden; but he was a Greek accustomed to a land of limestone rocks. What Dionysius probably saw was an unusual number of vineyards and orchards of olives, figs, apples, peaches, plums, cherries, and almonds, many of which, as in Campania to-day, admitted some cereals and vegetables between the rows. These combination orchards and gardens are possible in the bright sunlight of Italy where lighter crops actually benefit from shade. The elms,[17] poplars or fig trees were set out in rows about forty feet apart and on these the vines were trained. The fig trees justified themselves in their fruit as well as in propping the vine. Poplars and elms were liked because they did not shade too heavily and their leaves were pruned for fodder. Thus by planting grain and vegetables between the rows of elm-propped vines, the farmer found that the smaller plants thrived better, he enjoyed the advantages of a diversified crop, he did not have to wait for a return on his capital until the vines were full grown nor suffer a complete annual loss when hail ruined his crop of grapes.

Often sheepraising was combined with olive production since sheep could pasture on the grass that grew between the trees, but it proved possible also to raise cereals in the olive groves. Where land was rich and irrigation was feasible, as in Campania,[18] a constant succession of grains, legumes, and vegetables, three crops per year, could be produced between the rows of vines. There

[17] See *art. Arbustum* in *Pauly-Wissowa;* Varro, I, 7, 2; Pliny, XVII, 202; Columella, II, 9; V, 9, 11.

[18] Strabo, IV, 3.

however Vesuvius had fertilized the soil with a beneficent rain of rich volcanic detritus and the streams of the Apennines supplied an abundance of water to the very level plain; but Latium and Tuscany were not similarly blessed. On the whole the Roman farmer seems to have been very skilful in the use of manures, nitrogen-producing legumes, and in the proper rotation of his crops; he also proved through the centuries versatile enough in shifting the emphasis between cereal culture, grazing, and fruit raising so as to permit his tired land periods of recovery. Although as we shall see later, Italian agriculture ultimately failed to meet the demands of Rome, it is very doubtful whether it was the native farmer who deserves the blame for the failure.

CHAPTER VII

Industry and Commerce

During the fifth century when Rome's political power was slipping out of hand it was hardly to be expected that she could retain her hold upon the commerce and industry developed under Etruscan princes. Indeed during that time the industrial class probably diminished rather than increased, for the slow-moving revolution which ended in the plebeian victories of 339 does not in any real way resemble the socialistic out-bursts of an urban industrial proletariat. The inference is sometimes drawn from the vast space cinctured by the Servian wall that the city was very populous and, by implication, that large numbers of its citizens were engaged in productive occupations. The wall, however, took its long course partly because it could thus avail itself of certain convenient escarpments, partly because various sacred shrines upon the outlying hills laid claim to protection. What uninhabited spaces it thus included, we cannot say. At any rate it would be very hazardous to estimate its population from the area enclosed by the walls.

Later, in the fourth century, there are political measures of a new color that imply, at least temporarily, the influence of an urban democracy. The famous Appius Claudius,[1] whose sympathies for the urban poor are re-

[1] Reforms of Appius Claudius: Diod. XX, 36; Livy, IX, 46. See also E. Meyer, *Art. Plebs* in Conrad's *Handwörterbuch.*

vealed by his construction of an aqueduct to the workingmen's quarters and his support of a freedman, Flavius, for a curule chair, seemed to aim at universal individual suffrage in his attempt to remove property qualifications for voting by allowing the city proletariat to register in any ward of the city, a measure which, since voting took place in the city, would have made the industrial class dominant in many of the wards. The proposal was rejected by the next censor, but the attempt of Claudius would seem to prove that at the end of the fourth century there existed a considerable class of men engaged in other than agricultural pursuits.

When, however, we look about for the products of this putative industry, they are difficult to find. There are no chance references in Greek authors pointing to the purchase of Roman goods, and there are very few articles found outside of Latium that permit the assumption of Roman origin. In pottery, for instance, the native ware[2] that appears in the Esquiline graves of that period is inordinately poor, certainly it could not have found a market abroad. The better ware is generally Campanian and Etruscan. A single exception to the rule, if it be one, is the pair of vases found at Falerii[3] with a Latin inscription. The work is good but the archaeologist insists that if it was made at Rome, it was by no native, a sufficient comment upon the state of Rome's industry. There exists to be sure a very finely engraved silver box, the well known Ficoronian cista, which bears the explicit testi-

[2] Pinza, *Bull. Com.* 1912, p. 24.
[3] Helbig, *Führer*[3], II, 1799 b.

mony: "Novios Plautios made me at Rome."[4] Apparently artists were working at Rome and in some instances creating ware of good quality, but here as in the case of the vases the theme and workmanship are un-Roman. Such industries, however, did not spring out of Roman needs, they were transplanted and apparently died with the generation that happened to bring them to Rome. Aside from these two instances we can point to only a few coarse vases of Latin manufacture which somehow got into Etruscan trade; and this occurred at a somewhat later time than the fourth century.[5] After so meager a harvest of evidence, we seem forced to the conclusion that the industrial class, such as it was, could hardly have supplied a vast market. Probably there were only the men needed to make cloths, shoes, and armor for Rome's expanding armies, wagons, plows and hoes for the farms, pots and pans for the kitchen.

Indeed the fourth century was not one of industrial progress anywhere. Greek cities were only marking time after the disastrous Peloponnesian war, and the new commercial activity that sprang up with Alexander's release of Asiatic resources was not yet in evidence. Etruria dulled by the loss of Campania and Latium on the south and of the whole of north Italy was no longer providing a rich market for the Greeks, and suffered in addition through the financial weakness of the Greek

[4] *Novios Plautios med Romai fecid.* Helbig suggests that the name is apparently Campanian, and that the locality would probably not have been mentioned had it been the artist's customary abiding place, Helbig[3], II, 1752.

[5] Helbig[3], I, 565: cf. *Mélanges d'arch et d'hist.* 1910, p. 99.

cities that had at least purchased her ores and metal-work.

The quickening of commerce that followed Alexander's conquest brought little of permanent value to the central Mediterranean. It was largely a feverish activity stimulated by an inflated circulation which did not last, since the source of the new wealth was not a permanently producing industry. During the century that the new-found hoards dribbled out of the commercial currents again, the full temple accounts of Delos,[6] which note so meticulously every obol of receipt and expense, mark with a melancholy monotony the dulling of life through the cheapening of wages and the product of labor. As for Rome it is significant that Claudius' reform did not succeed and that it was not soon proposed again. At the end of the century and at the beginning of the next the heavy demand for men for the army and the colonies[7] removed all need for a communistic political program at Rome.

In the two succeeding centuries we do not find evidence of any marked change in the nature of production at Rome. Doubtless the amount of ordinary ware produced at home increased with the growth of the city—ancient transportation was too costly to make commerce in cheap wares profitable—but of goods worthy of export we do not hear. The only difference now is that work previously performed by free labor began in the third century to fall into the hands of slaves, which of course tainted manual work to such an extent that the poor citizen, if he could not secure a plot of land, must per-

[6] Glotz in *Jour. des Savants,* 1913, p. 206.

[7] See chapter IV.

force to save his self-respect stand idle at the state crib. The slave who became the new man of industry had no choice but to work in silence, and so the voice that had spoken for the urban industrial class in political gatherings was henceforth silent.

For a long period Roman commerce fared no better than industry. In the West, Marseilles, Carthage, and such Italiote-Greek cities as were not "protected" to death by Greek and Syracusan tyrants held the field of legitimate commerce, while minor cities like Caere and Antium, deprived of strong political authority, fell back upon privateering. Roman trade, not having the stimulus of an aggressive production seeking an outlet and discouraged by the neglect of an agricultural nobility which scorned it and in treaties with commercial states even betrayed it for political advantage, made no permanent progress. By the treaty of 348 a Punic trader had free access to the markets of Latium,[8] but a Roman, should he care to compete, was excluded from three-fourths of the Carthaginian domain; and the senate had, in return for what privileges we do not know, signed away the Roman trader's right to sail along the Italian coast east of Tarentum. It was at about the time of this treaty that a colony was planted at the mouth of the Tiber.[9] Hitherto the sea craft that succeeded in crossing the bar at the mouth had to pull up against the vigorous Tiber current for fifteen miles, but sailing boats were seldom manned with oarsmen enough for that task. A harbor

[8] Polybius, III, 24.

[9] See chapter III, end.

provided a transfer station at the river mouth where vessels of deep draft could either unload into storehouses by means of barges, or transfer a part of their loads to lighters,[10] take on oarsmen, and proceed to Rome. This first colony was indeed very small, apparently not over four acres. But it seems to have sufficed for a long time. Not till Gracchan days are there signs of expansion. Then it is likely that the tribune, who was not afraid of paternalistic experiments, put in state granaries here, though he seems not to have deepened the harbor.

During the Hannibalic war it was necessary for the state to have goods transported to the armies in Spain, Sardinia, and Sicily.[11] To draw out sufficient Roman shipping for this purpose the government offered to insure the ships and cargoes, making bargains with three corporations on those terms. The venture was not entirely successful, however, for the companies tricked the state by collecting insurance upon rotten hulks. After the war Rome continued to need grain transports for the armies that were operating in Greece and Asia, and we may assume that these engagements aided in introducing Roman merchants into the eastern field of commerce. That field, however, was already occupied by clever Greek and Syrian traders who knew the language, the whims and the needs of the eastern customers, as no Roman

[10] Dion. Halic. III, 44; Strabo, III, 5. Ships of 3000 talents (less than 100 tons) could not enter the Tiber in their day, whereas ordinary merchant ships of the Mediterranean were from three to five times that size.

[11] Livy, XXIII, 48, 49; XXV, 3, 4; Polyb. I, 83, 7.

could. Apart from state contracts therefore the Roman merchants made little progress.

Nor did the state seem willing to patronize or advance the interests of the Roman merchant except in so far as the immediate needs of the commissary department required. Before the Punic war a democratic assembly forbade senators[12] to own vessels of sea-going capacity. The reasons for this measure have been widely discussed. Were the people afraid that the senators might waste public funds in harbor improvements? A few years later a censor was accused of contracting for docks at Tarracina because he owned estates nearby.[13] Or could it be that the commercial corporations were already strong enough to demand and secure monopolistic privileges? Such an hypothesis is supported by no other evidence. Livy's explanation that the Romans considered gainful occupations below the dignity of a senator is doubtless the true one, and Caesar's[14] re-enactment of the law shows that time did not alter the sentiment. Beneath this sentiment there probably also lay the practical consideration that senators were needed at home in the service of the state: indeed a senator always required formal permission from his government before he could travel beyond the call of a summons to the curia.

[12] Livy, XXI, 63, explains that it was passed because it was unseemly for senators to engage in gainful occupation. The maximum specified was 300 amphoras = about 225 bushels of wheat. The Claudian law was strongly supported by the radical democrat, Flaminius, which seems to imply that the restriction was not imposed wholly out of respect for old Roman *mores*.

[13] Livy, XI, 51, 2.

[14] Digest, 50, 5, 3.

When we review the second century, therefore, a period in which Rome's commercial interests are popularly supposed to have gained such influence in politics as to have caused the destruction of Carthage and Corinth,[15] we find upon examination of our sources practically no Roman trade of importance, and certainly no evidence except in the Gracchan days that the state cared to encourage Roman traders. After Hannibal met defeat Rome still permitted Carthage to close its seas,[16] a fact that reveals an unconcern quite incredible; and when Carthage finally fell in 146 Rome provided no harbor in Africa for her own province, permitting Utica, a free city, to inherit the trade and even to handle the produce of such Romans as settled in the new province. In the province of Sicily Rome established no port-exemptions or preferences for herself.[17] In the allied city of Ambracia[18] by the treaty of 189 Rome asked indeed for customs immunities but explicitly provided that these should also be extended to all the allies, including in the provision the Greek trading cities of Magna Graecia which were Rome's real commercial rivals, if indeed Rome had

[15] Mommsen, *Rom. Hist.* III, 238; Heitland, *The Roman Republic,* II, 156; Ferrero, *The Greatness and Decline of Rome,* I, pp. 20 and 38. I have discussed the matter more fully in *Roman Imperialism,* chapter XIV. See also chapter XIV below.

[16] Peter, *Hist. Rom. Frag.* p. 273, fr. 9.

[17] The request of Rhodes for permission to buy grain in Sicily in 169 is sometimes taken to imply a general control of the trade in Sicily, Polyb. 28, 2. However this request was made when Rome was at war and needed the grain. Cicero (Verr. V, 145 and 157) shows that commerce in Sicily was generally free.

[18] Livy, XXXVIII, 44.

any commerce at the time. Similarly though Rome had helped her ally Marseilles[19] to subdue the hill-tribes of Savoy in 135, and by her joint signature to the treaty aided Marseilles in establishing her wine trade in the subdued country, she nevertheless refrained throughout her career from imposing similar provisions in favor of her own commerce, whether in Spain, Africa, Asia, or her own Gallic provinces. Again, upon giving Delos to Athens after the third Macedonian war, Rome stipulated that it should be a free port for all nations. Rome's advantage doubtless lay in securing a place where her armies and navies when engaged in the East might procure supplies at reasonable prices. But the commercial profits fell to the numerous traders of Greece, Syria, and Egypt who soon made Delos an important trading center. It is merchants from these places that occupy the most space on the numerous Delian inscriptions of the second century. To be sure the names of not a few Occidentals also occur but upon examination these prove to belong to south-Italian Greeks and Campanian traders,[20] until some

[19] See *Roman Imperialism,* p. 280. In consequence of this treaty Italian as well as Massilian wine found a sale within the area: Athen. II, 36. But Rome never extended the prohibition to the parts of Gaul which she alone subjected, for in the large Gallic provinces wine was raised everywhere: Strabo, IV, 178, 179; Colum. III, 2, 16; XII, 23; Martial, XIII, 107; Pliny, XIV, 27; C. I. I., XIII, 1954 et al. The passages that mention a prohibition (Cic. *De Rep.* III, 9, and Hist. Aug. Prob. 18, 8) have reference therefore to the small district in lower Savoy which Marseilles annexed in 154 B.C.; see Polyb. XXXIII, 11.

[20] Hatzfeld, *Bull. Corr. Hell.* 1912. The sacred island was a Mecca for pilgrims from all Greek cities, and as such had a just claim to a free port.

years after the province of Asia was acquired. Very few Roman merchants had any share in the great prosperity of the island before that time. Finally we may recall that during the Republic commercial interests at Rome were not powerful enough to procure the slight appropriation necessary to make a road-stead at Ostia capable of accommodating sea-going vessels.

Until Claudius improved the harbor of Ostia all the larger vessels put in at Puteoli,[21] a hundred and fifty miles from Rome. Indeed the ancient world has no record of any state of importance so unconcerned about its commerce as was the Roman Republic.

In the preceding pages the inference has continually been drawn that Rome's constant acquisition of new lands turned men and capital away from commerce and industry into fields more congenial, and that herein lies the chief reason for Rome's circumscribed economic interests. It may be well to consider more fully how this restriction reacted upon society in such a way as to create peculiar moral inhibitions and even social groupings by the aid of which the natural economic evolution that we have traced justified itself to the Roman consciousness. Such a consideration may reveal the reasons why the *a priori* methods of interpreting historical development by means of generally accepted economic and psychological maxims must be applied to Roman history only with great

[21] For Puteoli as a harbor in Cicero's day see Cic. *Verr.* V, 154; *In Vat.* 12; *Rab. Post.* 40; *de Fin.* II, 84, and Strabo, IV, 6. It will be recalled that even St. Paul on his way to Rome disembarked here and made the rest of the journey by the Appian Way.

reserve. It will be noticed particularly that those forces which in modern societies find effective expression through universal suffrage and a ready hearing through facile means of communication then failed frequently to reach even the organs of government. In the Roman Republic it is not safe to infer that a great need or a strong desire felt by a certain class or group eventually manifested itself in a governmental act or law.

For instance, the laboring classes which are now strong enough to modify to their advantage practically every financial, industrial, or commercial bill passed by a modern law-making body, could in Cicero's day exert but slight pressure upon the government. There the laboring man was either a slave whose voice was never heard, or a client who, considering his own advantage, voted as his patron told him. Even if he chose to vote independently his ballot was usually cast in one of the four city wards with those of ex-slave offspring. He could not organize to elevate his economic position, though a free man, for slave wages and slave conditions of life determined his own. In a thousand years of Rome's history there is not one labor strike recorded. He got only what the ruling powers saw fit to give him, and that usually was charity at most. In a word he had great needs but he had no way of exerting effective pressure upon the government to procure what he needed.

When we turn from the employee to the employer, we again find a similar difference between Roman and modern conditions. Whereas in a modern industrial state the business man has come to be the controlling power not

only in society but in the government, he was at Rome so far from being a leading citizen that even Cicero, who needed him for his *concordia ordinum,* found it possible to discuss whether he was quite respectable.[22] Cicero concluded that he was! But Cicero was equally sure that any man who went to the provinces on a business tour lacked the instincts of a true Roman: a worthy citizen could hardly leave the center of civilization for mere financial reasons. If wealth had been able to gain for men social and political prestige at Rome, the nobility could not have excluded capitalists from the Senate as they did till Caesar's day. The *novus homo* seldom made his way to the consulship, and, when the miracle was performed, it was not through financial power but through forensic ability or military prowess. The Roman Republican government was in fact blind to the political value of a soundly based industry and commerce, and failed to appreciate the relatively few Romans of ability who engaged in these pursuits. It might have devised tariffs and subsidies in aid of those who were facing foreign competition, but it did not. A lobby of manufacturers and shippers in the Roman Senate is quite inconceivable to one who knows Roman society and manners intimately. There was economic conflict enough, but the pressure was seldom exerted through political channels: apparently in this case it was the social caste-system that acted as a barrier.

To be sure the man of wealth gained some recognition in a limited field, that is, where the civil service needed

[22] Cic. *ad Quint.* I, 1, 15; *de Off.* I, 151; *Pro Flacco,* 91.

him. Since the Roman Republic with its frequent changes of executives could not build up permanent bureaus and boards for revenue-collecting and public works, it needed the capitalist to carry the contracts, and for this service it was willing to grant him a title, a ring, and a seat in the theater. Consequently the *equites* became a well organized political influence in the last century of the Republic, and latterday expansion was in some measure attributable to this class. But it is interesting to note that in this particular instance social position was gained through semipolitical service to the state, and that this position was definitely conceived of as quite inferior to that of the ruling nobility.

The agricultural class on the other hand was very powerful during most of the Republic. The farmers and land-owners were probably in control of all the rural tribes, and their interests often coincided with those of the senators, who usually owned large tracts of land. It is rather surprising therefore that we never hear of laws to protect Roman farm produce. However, even if we cannot find in Roman legislation any traces of positive measures in favor of the farmers, we may perhaps attribute to their predominance the apathy of the government to industrial and commercial needs, an unenlightened revenue system, a cumbersome financial policy, and the exclusion of the intricate problems that generally arise from economic conflicts.

However, it was difficult to secure common action on the part of the farmers. Being without ready means of transportation, they had to consider the advantages of

the market nearest at hand, and thus this group readily split into various diverse factions, each moved by different interests. Perhaps this is why we can point to so little positive legislation that clearly bears the granger stamp. The influence of the landed class showed itself early in a desire for safety on the border and consequently well ordered relations between tribes. As has often been said, the prospering farmer in the open plains had all to lose and nothing to gain from a state of border-brigandage, so that he became a convert to faith in the sacredness of vested interests. Then he organized his military machine and struck back at the raiders till he converted them to his views—not forgetting to exact an indemnity, and, in special cases, applying the doctrine of dreadfulness. The economic factor was therefore of great importance in shaping the Latin federation, but that does not imply that it was or could be organized to secure immediate economic ends.

The nobility which directed Rome's policies could of course usually express their desires in action, and their economic interests, which were fairly uniform, were probably not neglected. We have seen that they paid far too little heed to the needs of industry and commerce on the one hand, and of the laboring classes on the other. To their own desires they were naturally not so heedless, though we need not assume that these desires were always of a material nature. The average Roman noble was rather hard and practical, prudently calculating, not very sentimental, but on the whole fairly just. Material interests were very important to him, for he must con-

serve his property qualifications or fall below his class. For this purpose he needed to have his lands well managed and to receive legacies from his clients. But the motives that might influence a senator were many and various. Now it is plausibly said that, since man is engaged in acquiring property most of his waking hours, he naturally employs to the same end what political power he may have. If we are to apply this test to the Roman senator, however, we need to keep in mind that most of the influences about him were not of an economic nature. He was not a business man, and he spent very little of his time with his own material concerns. Problems of state and judicial or legal service usually engaged his attention, so that his daily concerns naturally kept him less occupied with the economic viewpoint than is true of men in general.

Since the economist takes cognizance of environment, we may consider how this affected the Roman senator. From boyhood he lived in the presence of the *imagines* of his ancestors. Some of them had died on the battle field, some had triumphed, some bore names that were inscribed upon laws, and treaties, and dedicated temples. There were among them consuls, judges, orators, governors of provinces—there were no captains of industry. They had won the *memoria sempiterna* that Roman history held before man as his highest goal. Could the sons of a noble pass daily before those statues and not be kindled with a yearning for *gloria? Nullam enim virtus aliam mercedem laborum periculorumque desiderat praeter hanc laudis et gloriae*—a sentence that had not

yet lost its meaning even in the days of civil strife that made the best of men cynical. No people has ever more treasured the glories and the virtues of ancestors. The nobles themselves wrote the nation's history: Fabius, Cincius, Postumius, Cato, Piso, Fannius, Sempronius, and a score of others. They embodied their deep respect for brave deeds in their institutions: the *laudatio funebris*, the triumphal arch, the honorary dedications, the heroic burial, the pomp of triumph, and all the rest. To catch the spirit that entered these men one must read Vergil's "masque of heroes" or Livy's epic of seven centuries. The irresistible determination, the power of self-control, the stolid puritanism, as well as the hardness and self-sufficiency of the native old Roman were racial qualities, a part of the blood inheritance transmitted after centuries of hard-handed struggle had weeded out the unfit. In the old Roman noble that inheritance was not so diluted that his *virtus* did not quickly respond to the appeal of ancestral memories. It was not till the civil wars cut down the old race, emancipation and immigration mixed the blood, and overmuch prosperity induced parasitism, that time-honored ideals went for nought.

As we have said, daily occupation with the political and diplomatic problems of state somewhat blinded the Roman noble to the economic point of view. He dealt with the intricacies of a hundred treaties made with free, allied, and tributary states; he must consider the state's relations with scores of tribes in every degree of civilization or barbarism all along the border; there were always provinces to keep satisfied, governors to appoint and

supervise, armies to levy, shift, and direct. All these matters involved niceties of legal interpretation, of etiquette, position and honors. Engaged in these problems he grew legal-minded and pompous, but he was hardly likely to become obsessed with the ideal of a "business administration." That the Roman Senate never devoted half enough attention to economic questions is largely due to this preoccupation with diplomatic, political, and ceremonial concerns.

Finally, the desire to conserve their own position and power, the *auctoritas senatus,* both for the sake of personal prestige and for the pecuniary advantages which the position entailed, taught the nobility to maintain a conservative regime. If, for instance, some individual consul advocated a war of expansion the Senate was likely to oppose him. The aristocracy had in fact learned early that when a small city-state extended its boundaries too far, a large army was needed to hold the empire, and a popular leader of the army was a menace to aristocratic control.

It would seem, therefore, that Rome was one of the states where the normal economic pressure generally met with strong counteracting forces. The laboring man could not reach the attention of the governing class, the industrial interests were weak and their value underrated. The farmers were so separated geographically that their interests failed to coincide, and the nobility were so preoccupied with purely administrative problems and so jealous of their own prestige that they gave little thought to economic measures. In general it must be said that

the Roman economic problems were unusually simple. The gradual conquest of Italy and the provinces more than occupied the surplusage of capital and population so that there was no crying need for industry and commerce. The returns from the simple investments in land and in capitalistic enterprise sufficed to keep the people in prosperity, and presently in flabby desuetude. The intricacies of our economic system, therefore, never threw their inordinate strain upon the government of Rome; and the charge that Livy and Tacitus wrote political history because they were "economic-blind" misstates the case: they wrote as they did because they grasped clearly the essential facts of Roman society.

CHAPTER VIII

The Gracchan Revolution

The middle of the second century B.C. found Rome in a ferment of discontent. Under the leadership of the philhellene aristocracy the state had engaged in entangling alliances throughout Greece and the East which were now compelling Rome to decide whether she would endure daily insults as a "friend" or assume control. She chose the second alternative though with many misgivings; for the senate dreaded the military power that empire necessitated, and the democratic leaders feared the power and prestige that would accrue to the senate from provincial administration. In a word, questions of foreign policy had become so hopelessly interwoven with every domestic problem that the simplest reform could not be discussed on its merits. The irritating questions of government threatened to divide Rome into hostile factions.

By this time too the very stock of Rome had begun to change, not through immigration but through the accretion of manumitted slaves and war captives. Doubtless the jibe of Aemilianus overshot the fact when he claimed that he had led to Rome in chains the hordes that now validated the revolutionary bills of Gracchus. But the phrase would have passed as pointless had there not been much truth in it. That reform through orderly compromise now gave way to revolution through bloodshed is

largely due to the displacement of real Italic peoples by men of Oriental, Punic and Iberian stock.

Finally the evil consequences of the over-benevolent leasing system now began to lower over the whole land. The lease-holders had soon gained possession of all vacant lands thereby precluding new distributions to a growing generation. But more than that, holding an advantage over the settlers who tried to work their plots by precarious hand-to-mouth methods, they even encroached upon and gained possession of many such holdings. For the sixty years before the Gracchan reforms, during a period when war casualties counted for little, the citizen-population of Rome increased not at all. Apparently the peasantry lost courage and withdrew to the provinces, or into the uncounted riff-raff of the cities.

It was a young aristocrat, Tiberius Gracchus,[1] the friend and associate of a group of moderates that read Stoic philosophy at leisure moments, who had the courage and faith to attempt agrarian reforms which seemed to promise social and political amelioration. He had ob-

[1] The chief accounts are found in Appian, *B. C.* I, 1–26, and Plutarch's lives of Tiberius and Gaius Gracchus. Greenidge and Clay, *Sources for Roman History,* have a convenient collection of most of the other ancient references. The introductory chapters in Greenidge, *A History of Rome,* give an admirable review of social and economic conditions. His chapters on the Gracchi, and those of Heitland, *The Roman Republic,* II, are the best surveys of the Gracchan reforms. For discussion of the sources see Fowler, in *Eng. Hist. Rev.* 1905; E. Meyer, *Kleine Schriften,* p. 383, and Cardinali, *Studi Graccani,* 1912. The fragments of the Gracchan speeches are collected in Meyer, *Orat. Rom. Frag.*

served while travelling through Etruria that the plantation system fed upon slavery which he, keener visioned than his contemporaries, held to be an evil in itself. In his election speeches, fragments of which have survived, he argued that such a system could not provide the strong body of yeomen needed by the army of a growing state. But he went further and appealed to humanitarian methods as well, and, adopting a social theory then gaining support among Greek publicists, he assumed that the state owed to its citizens in return for loyal services a parcel of land on which they might earn a livelihood. His proposal was to reclaim the public lands that were held contrary to the quantitative restrictions of the old Licinian law, and to distribute these in small lots to Roman citizens as inalienable leaseholds at low rentals.

The senators discussed the bill and rejected it. They argued the injustice of reasserting a claim to lands that the state had overlooked for generations, that had in fact been improved at no little expense by the holders and had to some extent even passed by testament or purchase to "widows and orphans," who seem somehow even then to have accumulated dubious titles. They also reminded the Italian peoples who had been admitted to such lands that if the Gracchan measures were adopted they would probably lose all they possessed to Roman citizens.

Tiberius, balked by the senate, revived the long dormant provision of the constitution of 287 which permitted a referendum[2] to the plebeian assembly of legislative

[2] F. F. Abbott, *The Referendum and Recall among the Ancient Romans,* Sewanee Review, 1915. The theory of the recall was

proposals. When, however, he called for a vote, a fellow tribune, Octavius, as was his legal right, interposed a veto. Tiberius refusing to be blocked then proposed a measure legalizing the "recall" of tribunes who acted contrary to the wishes of their constituents. The measure passed amid cries and charges of rebellion. Forced through as the measure was without adequate constitutional justification, the act was near rebellion, and few there were who later revived the precedent. But Tiberius' instinct was right. The tribune was not originally intended to be a magistrate of the state, but rather an advocate and patron of a class or of individuals and as such subservient to the needs of his constituency. Furthermore the enlargement of the board of tribunes to the unwieldy number of ten had not been intended to provide division within the board but only to extend its capacity for action over a large area. After tribunes began to sell their services to checkmate each other the original purpose of the board was defeated, and only by reducing its number virtually or actually to one could its efficiency be restored; that at least the introduction of the "recall" would accomplish. In any case the assembly had been empowered by the constitution of 287 to try whatever legislative experiment it might desire, though it was in duty bound to employ less abridged methods than Tiberius used on this occasion.

Thus by revamping the machinery of popular sovereignty Tiberius passed his drastic agrarian law. He

again successfully applied in Cicero's day: Asconius, *In Cornelianam*, ed. Kiess. p. 64.

had a judicial commission elected with powers to examine and adjudge titles and to distribute the lots. The senate still attempted to impede the execution of the law, and indeed after the death of Tiberius succeeded in nullifying the powers of the commission, but some of the boundary stones erected by it are still in existence, and if Mommsen's contention is correct that an increase of 73,000[3] names on Rome's census list of the year 125 B.C. betokens an increase of approximately that many landholders, the committee must have worked with great success. Fate has generously spared a milestone[4] erected by the consul Popilius, the chief opponent of Tiberius, on which he had inscribed the surprising record: "I first compelled the grazers to give back the public land to tillers." One is almost tempted to hazard a guess that some sarcastic workman inserted the line for amusement. But perhaps Popilius was after all a shrewd politician who knew when to steer with the wind.

Tiberius' attempt to secure re-election resulted in a

[3] See Mommsen, *Rom. Hist.* III, 335; Beloch, *Die Bevölk.* p. 308, questions this interpretation. The riddle cannot be solved so long as we do not know precisely the scope of the census list. Against Mommsen's view, it has been objected that the land lots were leased and not given outright and that therefore possession of them did not convey citizenship of full rank. This, however, is hardly valid. Gracchus was primarily interested in extending a sound body of full citizens capable of army service, and may well have inserted a clause in his law bestowing fullest citizenship upon his colonists.

[4] A milestone in Lucania on the new military road leading from Capua to Sicily. The sentence reads: Eidemque primus fecei ut de agro poplico aratoribus cederent paastores. C.I.L.I, 551.

riot in which he was killed, and his work soon came to a stand-still. His brother Gaius, however, reached the same office in 124 and continued the work with a widely expanded program. Gaius Gracchus is indeed still an enigma to us since the documents upon which our later sources rest were all written in the bitterest spirit of partizanship whether for or againt the tribune. From the fragments of his speeches[5] quoted verbatim, though often excerpted with evil intent, it is clear that he sometimes acted in the spirit of a party leader, who could when need arose propose measures of little general value in order to gain adherents and strengthen his *bloc*. That he even struck at his opponents in a purely vindictive manner seems demonstrable from his own words. These facts however must not be allowed to weigh seriously in the judgment of his main program or in the interpretation of doubtful points. In pagan Rome, not yet very far from the age of the vendetta, vindictiveness under the sting of a brother's murder was accepted as reasonable and considered quite compatible with lofty ideals. The only question that concerns us at present is whether the pursuit of vengeance blurred the vision or misdirected the ultimate blow when the great task of reform called for completion. And it must be admitted that no legislative act of his actually passed which was not fully justified from the point of view of his program.

As for the intrusion of party politics, we are seldom able to say what measures were merely means to an end, intended to be annulled or neutralized after the goal was

[5] Meyer, *Orat. Rom. Frag.* pp. 224 ff.

reached. The monthly distribution of corn to the poor at half price was cited by his opponents as a case of mere bribery. This may be correct. But, it is also possible that Gaius instituted this measure by way of temporary relief to serve only until he could secure support enough to scatter the poor in the country by further colonization. Meanwhile the cheap grain served as part pay for work in the numerous enterprises in which he employed the urban laborers. It is, however, not unlikely that this was a frank experiment in state socialism suggested perhaps by his Stoic mentor, Blossius. We know that the theory that the state owed its poor a livelihood had become current in the East in the dreary days of the third century when Greece was slowly dwindling to futility.[6] And if Gracchus was touched with such humanitarian ideas the temptation was great, for the granaries of the state were full of wheat from Sicily which belonged to the people. They had but to vote a distribution to themselves of their own property. Why should they go hungry when the decision to open their own storehouses lay in their own hands?

[6] Köhler, *Sitz. Akad. Berlin,* 1898, p. 841; Wilamowitz, ibid. 1904, p. 917; Rostowzew, art. *Frumentum* in *Pauly-Wissowa,* VII, 139. The Stoic philosopher Blossius, the teacher and companion of the Gracchi, seems to play the same rôle of social reformer in connection with his pupils that Sphaerus did who a century before encouraged Cleomenes to divide all property in Sparta. The Gracchi might also have learned of such movements in Greece from their personal conversations with Polybius, who was deeply interested in the career of the strange Spartan king. Cicero, *De Off.* II, 80, implies that the Gracchi followed the example of the Spartan kings: ex eo tempore tantae discordiae secutae sunt.

The experiment to be sure led to disastrous results both in neutralizing the success of the Gracchan colonial schemes and, since no one later dared oppose the charity, in a continued pauperization of the Roman populace. But the first experimenters in social legislation readily fall into errors, and recent experience has proved that states which have to face the exigencies of strenuous military duties take short cuts to the winning of a contented and well fed populace, regardless of the future consequences to the general morale.

Two other measures are usually credited to partizan spirit, the transfer of jury service from the senators to the men of wealth, the equites, and the displacement of the native tax collectors in the province of Asia by Roman publicans who gathered the dues by contract. A fragment of a speech by Gracchus proves clearly that in the former case the author fully realized that it would create a division[7] between the nobility and the knights, as of course it did. The significant political consequence of the law which Diodorus[8] and other critics of Gracchus emphasize, namely its effect in placing provincial governors at the mercy of the publicans, could hardly have been contemplated or indeed forseen at the time of its passage, since that far distant result was made possible only by the slowly accumulated effects of the contract law.

Gaius clearly had in view the curtailment of senatorial power, but if we bear in mind his peculiar faith in business men and business methods we can readily believe that Gaius desired most of all to elevate that class in

[7] Cic. *de Leg.* III, 9; Diodorus, XXXVII, 9.
[8] Diodorus, XXXV, 25.

popular esteem by some form of official recognition and to enlist its good will and practical experience in public service. And though the record this class afterward made as jurymen probably fell below his expectations there is no evidence to show that it performed these services with less honesty and efficiency than the senators.

The collection of Asiatic tithes by contract, though like all work done by political contracts it led to much corruption, brought in a larger and more dependable revenue than could have been procured through the agency of local authorities, usually unfriendly, and too far distant to watch. Naturally a well organized civil service bureau, such as the empire finally provided, would have been more considerate of the tax-payer. But this was not yet possible since the republican constitution was based upon the idea that magistrates should hold office for but one year, and, obviously, important departments of state, being at the mercy of each administration, could hardly be durable under such a system. Political critics never tire of alluding to the baneful influence of the contract system that is still perforce so largely used in modern democracies, and they stand quite aghast before the fact that the largest of democracies still jogs along without so much as a budget. To Gaius Gracchus the introduction of the contract was of course a step toward efficiency. He found that the tribute of Asia instituted a few years before was dwindling partly because some districts were incapable of financial administration, partly because the most capable of them would shirk the burden under any pretext. If he knew—as any Roman of experience must have known from complaints against the publicans en-

gaged in Italy—that the companies would occasionally fall into the temptation to defraud and extort moneys, nevertheless he had reason to trust in the supervision of the proconsul or in the power of some Roman tribune to bring the guilty to punishment. At any rate both these measures reveal in Gracchus a faith and deep interest in the possessors of wealth, a trait that we have discovered some trace of in Appius Claudius and Flaminius, but hardly elsewhere.

It was the same sympathy with the commercial classes that led Gaius to conceive of a new class of colonies,[9] nothing less than seaport colonies, not this time simply to protect landing places against incursions, but to encourage Mediterranean commerce. When in 146 the great port of Carthage was destroyed the senate had been so negligent of commercial interests as to leave the new province of Africa dependent upon non-Roman ports like Utica for ingress and egress. This deficiency Gracchus proposed now to remedy by planting a citizen colony at Carthage. Tarentum also, partly ruined by the Punic War, was to have a colony of picked citizens who might develop the port to its old-time splendor. The need here was great since a large part of the recently allotted lands lay in southern Italy. A third colony of selected citizens was sent to Scylacium opposite Vibo, perhaps in response to the advice of merchants who preferred to have a portage there rather than risk the troublesome sail around through

[9] Plut. *C. Gracch.* 6, 8, 10; App. *B. C.* I, 23; Livy, *Epit.* 60; Vell. II, 7. See Hardy, Six Roman Laws, p. 73. Gracchus' policy in these colonial foundations is well treated in Abbott, *The Colonizing Policy of the Romans,* Class. Phil. 1915, 368.

the straits of Messana. It will be remembered that Rome still found it practicable to get much of its merchandise by land transport all the way from Puteoli! In all these measures the tribune may have had the advice of the best business intelligence, since in his vast enterprises he constantly came in contact with men of large affairs.

The proposal upon which the young enthusiast went down to defeat—a proposal offering mere justice without any material benefit to the voter—was a bill giving citizenship to all possessors of Latin rights and *Latinitas* to all other Italians. His enemies saw in this a scheme merely to create a new electorate bound to him alone, though it is difficult to see why he should put in jeopardy his present support for a new constituency if power was his object. His purpose in this measure was partly to place the Italians in a fair position with reference to the agrarian law, partly to bring all Latins under the protection of the civil courts when suffering from the abuses of irresponsible Roman officials. Moreover, his outspoken interest in a sound citizen-body from which to draw soldiers for the army and his dislike for the freedman class that threatened to dominate the city justify the belief that he also saw in the measure great advantages for Rome. The bill, however, only raised unfulfilled hopes in the Italians, and its defeat hastened on the Social war.

The Gracchan reforms did not save Rome from the deserved penalties of her misdeeds. The more important measures were obstructed, those that passed were either modified by the senate or administered with so little of the spirit of the author that their benefits were largely neutralized and their evils exaggerated. The actual re-

sults belied all hopes and intentions. The agrarian laws doubtless improved central Italy and relieved Rome temporarily, but, left incomplete, they sowed the seeds of the social war, whereas the continuation of the corn-doles soon brought the city to a worse condition than before. The *equites* were recognized in affairs of state, and this should have broadened the economic outlook of Roman statesmanship. Unfortunately when met and obstructed at every turn by the jealousy of the old aristocracy, they degenerated into a selfish faction satisfied to become parasites of the financial bureau, growing fat upon whatever capitalistic investments the new contract system threw in their way. The re-introduction of the principle of popular sovereignty was excusable only if the electorate could have been reformed as the Gracchi intended. Without that reform the Roman populace was coming to be incapable of self-government, not to speak of the government of a world. And the breach in the constitution produced by the attempt could not readily be healed when once the populace had thus recovered the machinery that made them all powerful. The rehabilitation of the plebeian assembly therefore led directly to the civil wars and the Caesarian autocracy.

Of immediate interest to economists as a result of these contests are the elevation of the capitalist-mercantile class to a position of power in the state and in its financial enterprises, the closing of Italian lands for colonization, which directed capital into other channels, and the acceptance of the policy of state-charity for the poor of Rome which placed industry in the city at a discount for all time.

CHAPTER IX

Public Finances

The Roman was a practical businesslike person in the management of his private concerns, but in the management of public finances his instinct for efficiency was neutralized, as happens in all democracies, by the pressure of friends seeking special privileges, by lack of a stable and durable policy in the everchanging government, by want of any scrutinizing and controlling supervision, and by a popular demand for amiable rather than officious magistrates. Frequently therefore the Oriental despots whom Roman governors displaced in the East had been better managers than their successors. Their kingdoms had been their private possessions: they had accordingly chosen efficient men to manage the satrapsies, had removed those who failed, and had continued in office the successful officials until they became specialists in their respective tasks. The Roman democracy on the contrary worked upon the theory that any citizen of good family could serve the state in any capacity. An eligible young man began his career as an official of the treasury for one year, then after a year's rest, if he pleased the voting populace, he had charge, as aedile, of some division of the public works, an office which under ordinary circumstances admitted him to the senate for life. After another year's rest he might be made a judge in one of the important praetorian courts, whether or not he had

studied law. Indeed one of the reasons why Roman civil law freed itself so readily from outworn legal conceptions, and kept its feet on the common-sense ground of equity was just that normal men of affairs presided in the courts over juries of men of similar stamp. But the system for obvious reasons failed to create an adequate criminal law. The official was then given a year's practice in managing one of the smaller provinces; after which if the people so disposed he might for a year become the supreme magistrate of Rome. Thereafter he would be put in command of an important province for a year, from which he returned to Rome to live the rest of his days a respected senator and aid in the direction of the imperial policies of Rome. Obviously such men received a very wide experience, but they were specialists in nothing in particular, and the knowledge they gained must frequently have come through sad mistakes committed in all kinds of offices for which they were not half fitted until it was time to depart for the next position. The system provided an excellent training school for retired senators, it did not make for skilful government. In the early days when the city was the state and when the citizen who paid his taxes could see day by day how the state moneys were being expended, no great evil could result for long. What might happen later when unprotected provinces far from Rome were placed at the free disposal of such men is well enough illustrated by the stories that have made the name of Verres a proverb.

In the early Republic national expenses were but trifling. The few magistrates served their year without

emoluments. To be selected by popular acclamation was flattering enough to evoke a year's public service without further reward. The army also served gratis: only property owners were called to arms and they presumably had sufficient interest in the protection of their homes and properties to fight without pay. As for equipment the heavily armed first line and the cavalry were selected from the wealthier men who could best afford to equip themselves. Public work like wall-building[1] was done by the citizen-army as a part of its duty, roads and streets were graded by the property owners at public command. The early temples seem largely to have been provided by the sale of booty. And this brief list runs the gamut of the early state's needs. Rome had not yet outgrown the conditions of tribal life where common action, so difficult to secure, confined itself to the mere physical defence of the group, leaving all questions of moral, intellectual, and social welfare to the devices of the family and the interested individual. New functions the Roman government assumed very slowly and reluctantly. Thus for instance it was not till the day of autocracy that the state considered itself under any obligation to supervise or encourage education, even as in modern times the most liberal governments of Europe have been the most dilatory in accepting such non-political burdens.

The first demand for a well-stocked treasury came with the long war against Veii. The year-long service in the

[1] For example Livy (VII, 20) says that the soldiers after their campaign of the year spent the rest of their time repairing the walls.

army with the consequent neglect of farms and business necessitated the introduction of a regular stipendium. At first this was very trifling, little more in fact than enough for the soldier to pay for his rations, but it marks the time from which a tax had to be levied upon Roman property. This annual tribute[2] seems to the modern not very large, frequently not more than a mill per cent. And even this was at times restored[3] to the taxpayer, if war indemnity and booty sufficed to permit repayment. This tribute was a uniform property tax. On real estate[4] it was levied on the *ager Romanus,* that is, upon all land within the bounds of the city-state proper as far as the ward-divisions extended, and was levied even if a non-Roman acquired such property. In addition to this all Roman citizens whether living at home or abroad were subject to a tax on all other property as well, as for instance on cash, slaves, cattle, implements and furniture. The property of widows and orphans, not at first on the citizen census list which had been made up for military purposes, was later subjected to a tax that was set aside for the equipment of cavalry.

The Samnite wars, long protracted through desolate regions and necessitating a reorganization of the army with new equipment and much road-building, entailed heavy taxpaying for long seasons. The First Punic War

[2] Livy, XXXIX, 44: his rebus omnibus terni in milia aeris adtribuerentur; Livy, XXIII, 31: eo anno duplex tributum imperaretur.

[3] Livy, X, 46; Pliny, *N. H.* XXXIV, 23.

[4] See Marquardt, *Staatsverwaltung,* II, 167, 168; Lecrivain, art, *Tributum,* Daremberg-Saglio.

also proved extremely expensive, especially because of the heavy losses of the navy. Seven hundred ships of war were lost in battles or in storms. It is not surprising that at the end Rome not only exacted an indemnity from Carthage—though it amounted to but a fraction of the cost—but also adopted from her the new theory that subjects should share with citizens the costs of government. The Sicilian tithe of course very materially relieved the strain upon the treasury. In the Second Punic War however this tithe did not even suffice to feed the armies in the field. Taxes were doubled and trebled. New super-taxes on incomes were added, free contributions asked for, public works were let on credit and loans were floated on the security of Rome's public lands. Indeed at that time the administration of the Roman exchequer assumed the aspects of a modern national treasury. But the Roman Senate disliked arrears and complicated financing. As soon as possible after the war it liquidated all outstanding loans by surrendering the mortgaged lands to the creditors, at first reserving the right to reclaim them at a revaluation, later conceding even this privilege. Thus the treasury got rid of its loans and thereafter succeeded fairly well in keeping a surplus account. Finally in 167 B.C. the accumulation of a large surplus from state mines, from indemnities and war booty, and an accession of regular income from Spanish tribute and from the rental of the Campanian and other public lands in Italy placed the treasury in such a strong condition that the direct tax upon citizens was discontinued.

In Cicero's consulship, before Pompey had added the new eastern provinces of Syria, Bithynia and Pontus, we are told that Rome's public receipts were about 50,000,000 denarii,[5] or about ten million dollars. The bulk of this sum came from provincial taxes, but smaller amounts were received from the rental of Campanian public land, public mines in Spain and Transpadane Gaul, fishing rights on lakes, rivers, and on coasts, and a salt monopoly, a five per cent. tax on the price of manumitted slaves, an occasional tax of five per cent. on inheritances, and from port duties levied at harbors, usually of from two to five per cent. These port duties were not conceived of as protective tariffs. They were too low to serve such purposes, and were in fact collected as regularly on exports as on imports. The Empire indeed developed a system of tariff-districts so that goods which were shipped a long distance were apt to pay duty more than once.

Of the ten million dollars provided in Cicero's day the larger part came from provincial tributes which differed in amount and method of collection according to the treaty or exaction made at the time of conquest. Sicily with its tithes and rents on public lands provided about one tenth of this, the tithe alone amounting to about one million bushels of wheat. Asia furnished one and a half million dollars in Hadrian's day after Caesar had somewhat lightened her burden. Perhaps we may estimate two millions for Cicero's day. Since enlarged Gaul provided two millions in the Augustan period, a half million will be a generous estimate for the small province of

[5] Plut. *Pompey*, 45.

Narbo. In comparison with these provinces, if we consider size, productivity and the conditions of conquest of each, we may venture to assume about one million dollars from Spain, apart from her mines, a half million for Sardinia and Corsica, one and a half for Africa with her public lands, a half million for Macedonia, and another half million for Cilicia. The other revenues mentioned may well account for some three million dollars.

To these amounts Pompey added the revenues of Syria, Bithynia, and Pontus, amounting to about six million dollars; Caesar conquered Gaul thus adding at least one and one half million, and Augustus annexed Egypt which, being wholly royal property and consequently now completely at the disposal of the treasury, brought in a full ten million dollars.[6] If we add to these some minor taxes instituted by Augustus we find that the Empire in its most prosperous day had an annual budget of about thirty million dollars or less than five per cent. of the annual budget of the City of New York!

These provincial tributes varied in nature and manner of collection, since Rome frequently tried to adapt her methods to those that had already been in vogue. In Spain for instance Carthage had imposed a light burden in order to make her conquest easy, and Rome in order to invite the people to a new allegiance during the Punic War had lightened rather than increased the burden. Hence a definite amount was agreed upon for each community and the towns collected these dues without the interference of Roman publicans. The stipendium of Span-

[6] Strabo, II, 118, and XVII, 798.

ish communities was equal to about half a tithe.[7] In Sicily,[8] except in the case of several friendly cities which were left immune and of public lands which Rome had inherited from the former sovereign or expropriated at the time of conquest, the grain lands were subjected to tithes, fruit lands to double tithes, and pasture lands to a cattle head-tax. These tithes were estimated jointly by the community and the Roman official, and the collection contracted for accordingly. Since, however, the law required that the contract should be let in Sicily, the community could protect the interests of its citizens by bidding for the contract, and this was frequently done. To be sure Roman and Italian business men who often engaged in collecting port-dues and in renting the public land in Sicily might also enter into the bidding, and being men of ready capital they came to capture many contracts which they managed to make lucrative. In the days of Verres these men had been so favored by the Roman questor on the island that Cicero in gathering evidence for the prosecution found Roman knights engaged in oppressive exaction in several cities.

After the contract law of Gaius Gracchus Asia fared even worse. Here there were legitimate objections to a fixed annual amount, since years of drought and incursions from the East made such payments impossible at times. A tithe on the actual crop, whereby both parties shared equally in the uncertainties, was therefore in

[7] Livy, XLIII, 2, 12.

[8] Rostowzew, *Art. Frumentum,* Pauly-Wissowa, VII, 152.

theory a fairer tax. But many communities[9] of the interior had little experience in management and failed to bring in their quota. Furthermore the produce was not needed at Rome and the transporting and disposing of it proved irksome. Gracchus therefore, to ensure a reliable income to the treasury, decided to throw the speculative risks upon capitalistic companies which might care to take the business of collecting[10] and disposing of the tithe. The censor auctioned the complete prospective tithe to the highest bidder. The companies that secured the contract gathered the requisite capital by issues of stock, which because of the risks involved were put out at attractive rates of interest. These stocks were widely bought at Rome, and as a result complaints of extortion on the part of Asiatics met with less sympathy on the rialto at Rome than they might otherwise have done. Sulla, after himself robbing the province, relieved it somewhat by substituting fixed charges, but Pompey, under pressure of the equites who had supported him in politics, reinstituted a modified form of the Gracchan system,[11] and this lasted until Caesar abandoned the worst features of the contract system. In the empire when it

[9] Cic. *Ad Quint.* I, 33; qui pendere ipsi vectigal sine publicano non potuerint.

[10] Rostowzew, *Geschichte der Staatspacht, Phil. Supp.* IX.

[11] Rostowzew, ibid., p. 357; cf. Josephus, *Antiq.* XIV, 10, 6; Cic. *prov. cons.* 10; *Ad Att.* V, 13; V, 16; VI, 1, 16; *Ad Fam.* XIII, 65; *Ad Quint.* I, 35; *Pro Flacco*, 32. Caesar remitted about a third, converted the rest into fixed amounts of money which the cities henceforth collected: Plut, *Caes.* 48, 1; Dio, XLII, 6; App. *B. C.* V, 4.

became possible to organize permanent civil service bureaus, the contract system was gradually displaced everywhere by officials responsible to the Emperor.

Corresponding to this income were the expenditures for the state bureaus, public works, cults, corn-doles, the army and the provincial government. Since magistrates served without pay, administrative expenses were still low, but the office-forces and bands of public slaves were increasing in size. Little was spent on police or fire departments before Caesar's day. One wonders how long a modern city would last with the kind of police protection that Cicero had. Some charges fell on the treasury for games. Public works, as for instance the building and repairing of roads and aqueducts, walls and public buildings, frequently received outright a fifth or a tenth[12] of the year's income to be assigned by the censors. Temples as in the past were often built by victorious generals from booty, and sometimes also endowed by them, or kept in repair by their descendants. But at times the state itself built temples and paid for special devotions requested by the pontiffs. The corn-doles instituted by Gaius Gracchus required in Cicero's day about a million dollars[13] annually. From this the fifteen bushels of wheat allowed to each man who cared to stand in the bread-line were supplied at a fraction of the cost. Clodius in his bid for popularity passed laws that nearly doubled this expense.

The armies and the provinces however devoured the

[12] Livy, VI, 32; XL, 46, 16; XLIV, 16, 9.

[13] See Marquardt, *Staatsverwaltung*, II, 116–18.

greater part of the state's income in these troublesome days, and some provinces cost the state more than they provided in tribute. The senate never admitted the need of a standing army, always dreading a repetition of its abuse by men like Marius and Sulla, but the warfare in Spain, Africa, and the East continued incessantly and the senate was compelled to hand on standing armies from one pro-consul to another. As each soldier received 120 denarii per year as pay the salaries for a legion exceeded $100,000, and the annual expenses of a legion doubtless reached double that amount. From incidental remarks in Cicero's letters we find that even in normal times Syria, Asia, Bithynia, Africa, Spain and Cisalpine Gaul had at least three legions each. At least twenty legions were therefore in service. Wars called for new and extra levies though at such times neighboring legions might be brought to the point of immediate danger. Pompey received six million dollars—more than half the year's income—to prosecute the war against the pirates in 67, and in 55 he was voted a million dollars annually for Spain, largely for the sake of matching his forces with those that Caesar had in Gaul. Piso, Caesar's father-in-law, received an equal appropriation for the comparatively peaceful province of Macedonia in 58, but the Senate in this case probably intended Caesar's relative to come back with a handsome surplus for which he need make no accounting. Indeed at this time the Senate had adopted the theory that nobles who had served the state all their lives gratuitously ought to receive in their last office as provincial governors a large enough appropria-

tion to indemnify them in part for past expenses. Cicero at the end of his term in Cilicia, a province of very modest proportions, had a surplus of a hundred thousand dollars still unused from the senatorial appropriation, and an equal sum left over from provincial dues. He did not put it in his own pocket, which awakened some unfavorable comment. A paragraph from Augustus' account of his reign[14] will give a better insight than can any general statistics into the extraordinary expenditures which the new empire assumed in its efforts to please the populace.

"When consul for the fifth time I gave each and every Roman plebeian four hundred sesterces (about $20) from the spoils of war; again in my tenth consulship I made to every man a special gift of four hundred sesterces out of my own estate; in my eleventh consulship I twelve times distributed food, buying grain at my own expense; in the twelfth year of my tribunician power I again gave four hundred sesterces to every man. These donations have never been made to less than 250,000 men. In my twelfth consulship I gave sixty denarii (about $12) apiece to 320,000 of the city plebs. When consul for the fifth time I gave to each colonist of my army 1,000 sesterces ($50) from the spoils. About 120,000 participated in this triumphal donation. When consul for the thirteenth time I gave sixty denarii to the plebs who were at that time receiving public grain; of these there were a little more than 200,000.—

"To acquire lands for soldier-colonies I paid 600,000,000 sesterces (thirty million dollars) for Italian farms and

[14] *Res Gestae Divi Augusti*, 15–17.

260,000,000 sesterces for land in the provinces . . . and to soldiers whom I sent back to their native cities I gave gratuities amounting to 400,000,000 sesterces, etc."

Rome's method of exploiting mines of precious metals and useful ores for the benefit of the treasury requires a more explicit statement than could be given above in the general review of the state's sources of income. The ancient state's need of precious metal for purposes of coinage early begot a more or less conscious theory that veins of silver and gold were public property to be treated as discovered treasure. Philip of Macedon worked the rich gold mines of Thrace on the state's account, Athens, the silver mines of Laurion, and Carthage, those of Spain. The Roman government of the Republic never consistently claimed possession of such subsoil treasure as a matter of course: Crassus[15] and other wealthy Romans owned rich mines in Spain, and the state even sold to private individuals various properties it could no longer exploit with profit. But the Senate did from time to time, when the need was great or when the opportunity favored, betray a strong interest in acquiring mines and working them for the account of the treasury. The Spanish placer-mines which for a while during the second century B.C. brought the state nearly two million dollars[16] annually may have been upon public land inherited from Carthage. It seems however that when

[15] Plut. *Crass.* 2; Diod. V, 36; Digest, 27, 9, 3.

[16] Polybius, according to Strabo, III, 2, 10. These seem to have been sold to private individuals later, perhaps when so far outworked that contractors were no longer willing to exploit them on a 50 per cent. basis.

Rome came into possession of a new province the mines whether in public or private lands were apt to be taken over for the public account.[17] If ores were afterwards discovered the state probably did not claim ownership, at least during the régime of the Senate.

We still possess fragments of the regulations[18] under which some silver and copper mines of Spain were farmed out by the Emperors, and since the contract system was here used and the mines had then long been worked we can apply most of the specifications to the Republican situation. Here we find that the whole mining region including the town itself was state property under the supervision of an imperial procurator. Whoever wished to take a mining claim must first pay a stipulated occupation price, after which he must begin work within twenty-five days. On beginning work he had to pay the state or give proper security for the price placed on the mine by the procurator, this being fixed on the theory that the state's price should, as in the case of treasure-troves, be estimated at one half the value of the ore. On payment of this price the contractor received the possession of the mine so long as he worked it faithfully without a respite of more than six months. Abandoned mines could be occupied on the same terms. In addition to the mining rights however the state also established and rented out a great many concessions in the town. It

[17] Strabo, IV, 6, 7 and 12.

[18] At Aljustrel, *Lex Metalli Vipascensis*, C.I.L. II, 5181, and a fragment of another regulation which may be found in *Rev. Arch.* 1906, p. 480. See Bruns, *Fontes*[7], pp. 289–295.

controlled a public bath, the exploitation of which was auctioned to the highest bidder under very strict rules regarding its management: the concessionaire must contract to keep the bath-tubs full of warm water every day throughout the year, must polish the metal work once a month, must admit women from daybreak till one o'clock daily at the price of one cent, and men from two till eight o'clock at half that price!

The state also controlled a public shoe shop, a barber shop, a laundry, and an auction room, the concessionaires of which had a monopoly of such work in the town but must provide what was required at prices fixed by the state's procurator. School teachers alone had the free range of the town and paid no fees. The work in the mines was largely done by slaves; but the rules regulating penalties for thefts of ore on the part of miners specify free men as well as slaves.

Finally a glance at the peculiar system of public finance in vogue in Egypt,[19] which Augustus added to the Empire in 30 B.C., will reveal the source of the strange paternalistic ideas that so profoundly changed Rome's fiscal methods after Cicero's day. Since national and individual prosperity in Egypt had always depended upon the regular distribution of the waters of the Nile and since this was impossible without a unified control which virtually entailed unified ownership, the Pharaohs of Egypt

[19] See Grenfell and Mahaffy, *Revenue Laws of Ptolemy Phil.;* Grenfell and Hunt, Tebtunis Pap. I, App. I; Rostowzew, *Gesch. Röm. Kolonates.* Mitteis-Wilcken, *Chrestomatie* I. Maspero, *Les finances de l'Égypte.*

had come to be recognized as the owners of the whole acreage of the Kingdom as well as sovereigns of the people. After Alexander's death the Ptolemies succeeded to this vast possession. They owned the soil. To be sure, they generally left the rich temple properties and temple industries intact, they colonized soldiers on various tracts, and they assigned portions to favored groups of people, besides simply renting out large districts as crown lands; but ultimately all the land was at the disposal of the Ptolemies. When Augustus came to Egypt he assumed possession of that vast estate which brought in an annual surplus of over ten million dollars. On wheat lands he, like the Ptolemies before him, charged according to the worth of the soil from one to three bushels per acre, and other lands yielded proportionate rents, usually payable either in money or in wheat. For plants that produced oil a certain percentage of the acreage was specified by the regulations; the state bought the crude oil at fixed prices, manufactured the edible products from it in state factories, and distributed these to small agencies that sold them at regular and fixed prices. The Italian shops which to-day sell "salt and tobacco" for state monopolies are direct descendants of such state agencies in Egypt.

Since by the action of the overflowing Nile the Egyptian peasants were freed from much of the labor of tilling, they were employed for a part of the year in state factories, or permitted to engage in private industries that were more or less under monopolistic control. In this way Augustus in due time became a captain of industry. Indeed most necessities were controlled by the state

monopoly: all the clothing of wool, flax, and hides; salt, oil (the butter of the ancient world), honey (their sugar), natron (their soap), brick and timber, even the fulleries and the dyeing establishments, and a few luxuries like jewelry, perfumes, and beer.[20]

Furthermore since the products of the Egyptian soil and of industry for the most part belonged to the state, the government naturally directed much of the transportation and encouraged trade which helped to dispose of the surplus. Strabo[21] says that in his time a ship bound for India sailed every third day from the Red Sea harbor. For the same reason, wherever it paid, Egypt protected its products from having to compete with foreign imports. Oil could be imported for use only on the payment of a 25 per cent. duty; importation of oil for sale was wholly prohibited. Finally capital had naturally to be provided or controlled by the state. Every bank was accordingly a state concession which did all its business on a fixed scale. Indeed economic absolutism was carried to an extent never dreamed of elsewhere, unless perhaps by some Bolshevist dictator. Augustus accepted the Ptolemaic inheritance and because it proved very profit-

[20] See Mitteis-Wilcken, *op. cit.* p. 239, on the Egyptian monopolies. They classify the last named article as a necessity!

[21] Strabo, II, 5, 12: "When Gallus was prefect of Egypt, I accompanied him and ascended the Nile as far as Syene and the frontiers of Ethiopia, and I learned that as many as one hundred and twenty vessels were sailing from Myos Hormos to India, whereas formerly under the Ptolemies only a very few ventured to undertake the voyage and to carry on traffic in Indian merchandise."

able continued its practices with but few changes. It was indeed the source of many of those sums with which he fed the Roman populace into an obese acquiescence. We shall have occasion later to note how some of these practices were afterwards applied in an attempt to rehabilitate agriculture in the abandoned areas of Africa and Italy.

CHAPTER X

The Plebs Urbana

The direction which industrial development takes depends in large measure upon the amount and nature of the available labor and the condition of the society out of which this comes. Our Southern States secured negro slaves because they could be profitably employed in the hot toil of tobacco and cotton lands, but the masses of slaves when once there practically conditioned the further economic development of the South for decades.

Preliminary to a closer study of the industrial innovations of the Ciceronian period it will therefore be pertinent to try to analyze some of the social changes taking place in Rome's lower strata. It is generally recognized that the independent house-holders of the Latin stock had materially decreased in numbers after the Second Punic War, and that their place was filled with slaves and slave offspring. How far this process had gone during the Republic, we shall attempt to discover.

When Cicero was convassing for the consulship in 64, his brother wrote him an interesting pamphlet on practical electioneering methods in which he reminds him that "Roma est civitas ex nationum conventu constituta,"[1] and that a candidate must be careful of his behavior towards his slaves and freedmen, for these have no little power in influencing the vote of the populace. It is in

[1] *De Petitione Cons.* 54 and 29.

the light of such chance remarks that one may comprehend the stormy riots and the bloodshed so frequently mentioned during the last days of the Republic, and the power of popular leaders like Clodius who gained such strength through his patronage of labor gilds that neither Caesar nor Pompey dared interfere with him. How Rome's body of citizens had come to be a "conglomerate of all nations" is however not so readily explained, since, after all, citizenship had not yet been given to any people outside of Italy. The evidence that we now have seems to indicate that immigration played a relatively small rôle in this change, but that the transmutation of stock was due to the growth of a class which had come up from slavery.

The wars of Rome were largely instrumental of course in destroying Italy's native stock.[2] The Second Punic War alone with such disasters as Trasimene Lake and Cannae accounted for a loss of perhaps a third of Rome's citizens. The succeeding wars in Greece, Asia, Spain, against the Cimbri and the Allies were severe enough to keep the manhood of Italy down. And what cost more than actual casualties during this period was the constant retention of about twenty per cent. of the young men of marriageable age in military service, so that the chances of family life decreased to that extent. On the other hand during the period when the best of the native stock was being drafted for service, slaves and freedmen lived in security at home constantly multiplying in numbers.

[2] See Park, *The Plebs Urbana in Cicero's day.*

The fact that after the Second Punic War the areas of vacated lands were being occupied for ranches and plantations manned by slaves contributed to the same result. Indeed as Appian[3] dryly remarks the landlords preferred slaves to free labor, since free men were liable to military service, while slaves were left alone, and could therefore be depended upon. His words are: "The landlords used slaves as laborers and herdsmen fearing that if they used free men these would be drawn into the army. The ownership of slaves itself brought great gain *from the multitude of their children,* who increased because they were exempt from military service. Thus the powerful ones became enormously rich and the *race of slaves multiplied,* while the Italian people dwindled in numbers and strength being oppressed by penury, taxes, and service in the army. If they had any respite from these evils they passed their time in idleness, because the land was held by the rich who employed slaves instead of freemen." The redundancy of Appian's phrases does no more than justice to the deluge of evils that he describes.

The new generation that grew up, excluded from opportunities to acquire land in Italy, drifted into the back eddies of urban slums or emigrated to the new provinces that were constantly being opened,[4] and such men were to a great extent lost to Rome's body of citizens. For

[3] *Bell. Civ.* I, 7.

[4] The Roman governors found enough Roman citizens resident in such provinces as Spain, Asia, and Africa to levy a legion of them in time of need: see for example Cic. *Ad. Att.* V, 18, 2; Caesar, *Bell. Civ.* III, 4, 3; *Bell. Alex.* XXXIV, 5. Cf. Kornemann, *art. Conventus,* Pauly-Wissowa.

forty years[5] after the Second Punic War there was despite a constant manumission of slaves but a slight increase of 1.3 per cent. annually in the citizens' rolls, and thereafter for thirty years, a period during which Rome added Macedonia, Africa, and Asia to the Empire, there was an annual decrease of one fourth of one per cent.

A complete statement of the causes of decline in population would necessitate a discussion of the Malthusian law, the social evil, birth control and much else, and for these problems we have of course but few data. Some considerations however may be indicated in passing. There is the striking fact which all readers of Rome's literature quickly notice that of the many families of which we have fairly good records in literary notices few contained more than two or three children. This fact accords with evidence provided by the thousands of tombstone inscriptions recording the names of parents and their children. Confirmation comes also from speeches like that of Metellus inveighing against race-suicide, from the legislation of so many of the emperors

[5] Beloch, *Bevölkerung der Griech. Röm. Welt*, 347, gives the census list with some revision as follows:

203	B.C.	214,000
193	"	243,000
173	"	269,000
168	"	312,000
163	"	337,000
153	"	324,000
141	"	327,000
131	"	318,000
125	"	394,000

who tried by tax exemptions or by censorial compulsion to induce or compel the citizens to consider the political necessity of a sound and increasing progeny, and finally from the blunt statements of historians who record the "lamentations of the poor, saying that they were reduced to childlessness[6] because they were unable in their poverty to rear their children." For the empire during which we have fairly full records of the more distinguished families we are enabled even to reach definite statistics[7] regarding the amazingly rapid decline of the old stock. For instance, of the forty-five patricians in the senate in Caesar's day only one is represented by posterity in Hadrian's day. The famous Aemilii, Fabii, Claudii, Manlii, Valerii and all the rest, with the exception of the Cornelii, have disappeared. Augustus and Claudius raised twenty-five families to the patriciate, and all but six of them vanish before Nerva's reign. Of the families of nearly four hundred senators recorded in 65 A.D. under Nero all trace of a half is lost a generation later, and not a few of those surviving live on only through the adoption of children. Of course members of the aristocracy suffered severely under the political tyranny of that century, but most of this result is after all directly traceable to voluntary childlessness.

It should not be too hastily assumed that this was accomplished by means of the old Indo-Germanic practice of *expositio*. This custom was not as prevalent at Rome as might be inferred from Plautus, whose plots are almost

[6] Appian, *B. C.* I, 10, applying to the time of Tiberius Gracchus.
[7] Stech, *Klio, Beiheft* X.

wholly Greek in origin. It may well be that in early Latium the period of overpopulation had brought such economic hardship as to reintroduce and excuse a practice which many branches of the race had sloughed off when emerging from barbarism. But Roman law never permitted the exposing of any normal male child, and a count of the children, male and female, recorded upon tombstones reveals the fact that the numbers were nearly equal, and that therefore female children were reared as were the male.[8] That the custom was not completely discountenanced however helps us to comprehend how public opinion could early blink at the fact that Roman families were shunning the burden of parenthood.

Of much greater importance than *expositio* are certain social conditions of the time. After the Punic War the old religion, which had once encouraged large families by stressing the supreme importance of ancestor-worship in the continued happiness of the parent in after-life, counted for little among the upper classes; moreover a society in which the young men spent their prime in the army and came back experienced men of the world to enter into domestic life was apt to have unrestricted patience with the canker of prostitution. Finally it must be remembered that Rome and Greece were the only two nations before the nineteenth century in which many individuals reached a condition of pampered ease, of rational self-control, and of sophisticated freedom from instinct-born folkways which played havoc, as these things now do, with the devices of natural evolution.

[8] The detailed study of the inscriptions here employed may be found in the *American Historical Review*, 1916, 689–708.

That the native stock dwindled is clear from all the evidence. The question of what took its place is pertinent. Immigration accounts for a very small part. Labor in Cicero's day was so largely servile that this element which to-day moves most freely in response to economic needs, was then moved and controlled by capital in the form of slaves. The free man was generally too poor to shift for himself. Furthermore neither Italian lands which required capital for development nor the city of Rome, which had no industries not in servile hands, could attract the foreign workman. And to live in semi-idleness at Rome upon the grain provided by the state required the status of citizenship; and this a foreigner could seldom acquire. South-Italian Greeks who received citizenship after the Social War were practically the only non-Romans who could avail themselves of this, and as we shall see they apparently scattered into the provinces to act as middle-men between Roman capitalists and the Greek-speaking East. In the early Empire for which inscriptions provide much information, we find at Rome exceedingly few names that bear the regular forms of nomenclature of non-Romans. The small shopkeepers[9] and traders of Rome prove to be largely non-Italian, but an examination of their names shows that they are freedmen rather than free immigrants. Only in some of the learned professions[10] and arts—in medicine, teaching,

[9] Pârvan, *Die Nationalität der Kaufleute.*

[10] Juvenal, III, 76:

> "While every land—daily pours
> Its starving myriads forth, hither they come
> To fatten on the genial soil of Rome,

painting and architecture, for instance—and in some occupations that required versatility and cunning, like those of the low comedians and acrobats do inscriptions and letters record a few foreigners; but even in these they had to compete with intelligent freedmen who had been given for purposes of profit a specialized training by their masters.

Slaves were of course available in great numbers. The more docile ones were supplied by the Greek markets where the Greeks in their economic decline sold their unprofitable chattels and for which they presently began to breed and train new generations of slaves as they found the demands of the West worth supplying. Throughout all that vast area of misruled Asia Minor also where petty provinces kept up a constant warfare, hordes of captives and kidnapped children of the various Oriental races were brought to the block by traders and pirates. Strabo[11] remarks that on the slave market of Delos ten thousand slaves per day were frequently sold. Rome's generals

> Minions, then lords of every princely dome,
> Grammarian, painter, augur, rhetorician,
> Ropedancer, conjurer, fiddler and physician."

One might infer from Juvenal's lines that these were free immigrants, and of course the casual observer had no way of knowing, but the inscriptions prove that men of this class were frequently slaves and freedmen. At Rome slaves could not be recognized as such. When a senator once proposed that slaves be given a distinctive dress, the Senate defeated the measure fearing that the slaves might become dangerous if they came to realize their great number, Seneca, *de Clem.* 1, 24. Cf. Tac. *Ann.* 4, 27.

[11] Strabo, XIV, 3, 2; Diod. 36, 3.

also brought in vast numbers of captives, many of them savage warriors who could be used only in heavy labor under close watch or in chains. The glut of Sardinian captives[12] became proverbial. A hundred and fifty thousand Epirotes were brought in by one raid. Pontus provided large numbers of captives in the campaigns of Sulla, Lucullus, and Pompey. When Carthage fell a large part of its population was sold into captivity. The Cimbri taken by Marius, assigned naturally to the heavy work on plantations, made up the backbone of Spartacus' army a few years later. And so the dismal story goes. Such were the laborers on the land and in the industries of Cicero's time. And these were generally permanent accretions, for Rome's extremely liberal policy in manumitting slaves and giving them citizenship with freedom made it possible for the conglomerate stock to liberate itself with unusual ease and to merge into the citizen body of Rome. Thus slaves not only supplied the demand for labor but the sons of slaves spread out into the trades and crafts that required civil standing, and in Cicero's day it was these people who already constituted the larger element of the plebeian classes.[13] To reach more definite data on the proportion of this new stock in Rome's population is difficult since no ancient author has chosen to

[12] War captives. See Koeser, *De Captivis rom.*, Livy, XLI, 28; XLV, 34; Appian, *Lib.* 130; *Mithrad.* 61 and 78, Livy, *Per.* 68.

[13] See Chapter XVI. Even the laws of the early Empire designed to restrict manumission were seldom enforced. Indeed no one was interested in enforcing them. The *Lex Salpensana* proves that owners could legally manumit practically without limit, C.I.L. II, 1963, ¶ 28.

give the complete census figures then available. The best that can now be done is to draw upon such facts as may be derived from Roman inscriptions, keeping well in mind that these inscriptions come largely from the Empire and that some reduction must be made for any inferences applied to the late Republic.

As is well known, the voluminous Corpus of Latin Inscriptions contains in the sixth volume the full text of all the sepulchral inscriptions of Rome, more than twenty thousand, and it may fairly be assumed that these, numerous as they are, record a representative list of Roman names of average type for the first three centuries of the Empire. Now a Roman tombstone may reveal many secrets. The name alone is often eloquent. In its official form it shows whether the bearer is a slave, an ex-slave, or citizen-born. In the case of citizen-born, the cognomen, if foreign, seems to betray ignoble or at least non-Roman ancestry. The stone is also liable, when it records the names of parents, children, or relatives, to disclose useful information regarding the status of the family and hence, by inference, of the individual.

Furthermore the Roman, proud of any petty office he has held, is sure to record the honor, and such offices and occupations to some extent make known the class and rank of the holder. In a word, a careful study of the numerous sepulchral inscriptions can furnish important data for estimating the character of Rome's population.

There has been some doubt as to whether the foreign cognomen is a safe criterion for judging the bearer's origin. If however one considers the inscriptions in

which both parents and children are named, one finds that the second generation is remarkably fond of changing a foreign sounding cognomen into one of respectably[14] native appearance. Martial of course commented upon this, as upon all else, and his epigram on the Syrian barber, Cinnamus, who transformed himself into Cinna, a name of unsuspected purity, has had many a congener in recent numbers of *Punch* and *Life*. This process of Romanizing names and choosing distinctly Roman cognomina for children is so very pronounced that we may safely infer that the foreign names had no good repute even among the lowly. When the latter occur, they may be taken as proof that the ancestral tree had its roots in foreign soil. And when the name is Greek, as a very large proportion of slave and freedmen names actually are, we may also infer that the bearer came from or at least by way of that part of the slave-producing world in which Greek was the language of commerce, that is Asia Minor and Syria.[15]

By using all the criteria just enumerated and applying them to lists of persons who actually resided[16] at Rome with their families, and not to mere transients, and by including in the list the Latin slave names, like Salvius, Hilarus, and Apparatus, that were avoided by freeborn

[14] *Am. Hist. Rev.* 1916, p. 693, for the full evidence.

[15] The evidence is collected in Bang, *Die Herkunft der Röm. Sklaven*, Röm. Mitt. 1910 and 1912.

[16] See *Am. Hist. Rev. Loc. cit.* I have included children of ten years or less, who presumably were born at Rome, but of other slaves and freedmen only such as revealed a near personal relationship with some resident of Rome.

citizens we reach the surprising conclusion that nearly 90 per cent. of the population permanently resident at Rome in the Empire bore the taint of foreign extraction.

The question then arises whether it was possible for this foreign and servile population to multiply and to merge into the civil population of Rome. In the absence of evidence to the contrary, the assumption has prevailed that in the city at least work in aristocratic households was so exacting that slaves could seldom have been allowed the privilege of family life, and that the masters could not afford the cost or the waste of service involved in the rearing of slave children. This assumption however proves to be erroneous. The sixth volume of the Corpus of Inscriptions fortunately records names taken from the extensive burial grounds and urn-depositories of several aristocratic households, and these prove that the slaves even in such well-organized establishments usually married and were well-nigh as prolific in offspring[17] as the average Roman of free station. Livia's dressmaker married her butler, Octavia's hairdresser was the wife of her keeper of the plate, Statilius' messenger courted the spinning maid, and so on the lists run. To be sure the percentages of offspring are not as large as in average Roman families, but when we consider that the slave child often failed for reasons of expense to receive the honor of an inscription, and furthermore that such children were often perforce separated from their parents and therefore not recorded with their parents the general conclusion just hazarded will not seem an overstatement.

[17] *Am. Hist. Rev.* 1916, 697–8.

That slaves usually married and had goodly families not only in the country, as Varro and Appian[18] both remark, but also in the urban households is then evident. A concomitant fact important for our purpose is that the Romans were exceedingly liberal in the practice of the manumission of slaves, so that this stock soon became an integral part of the citizenship. The facts about manumission are so easily accessible in the works of Friedländer, Dill, and others that we need not attempt to describe them here. The processes are well known. Frugal and ambitious slaves, particularly the quick-witted Orientals, could save enough in a few years to buy their freedom. Many were given their freedom because of good service, many were set up in some petty business upon a percentage of profits and hence earned their liberty; very many were set at liberty by testaments of their masters. Such freedmen would usually labor to win the liberty of their wives and children, if that had not already been secured, and thus there was always a horde of freedmen, whose children possessed full civil liberty, who assumed Roman names, dress, and manners,

[18] Varro, *R. R.* II, 1, 26; II, 6, 9; X, 6; Appian, *B. C.* I, 7; Columella, I, 8, 18; Hor. *Epode,* II, 65; Livy, XXII, 11, 8; Nepos, *Atticus,* 13, 4. Somewhat to our surprise, the laws which were invented for the encouragement of large families favored freedmen and freedwomen as well as the native stock. By the *lex Aelia Sentia* a freedwoman of "Junian" standing could become a full citizen by giving birth to a child, and a freedwoman who had four children was released from the guardianship of her patron, Gaius, I, 29, and III, 44.

and were ready to found new houses that might some day vie in splendor with the nobility of ancient days.

Nor it is to be inferred that the picture we have given of a wholly changed race was true of the city alone. Tacitus speaks only of the metropolis as the "cesspool of the world," and indeed Rome was naturally more affected than the rest of Italy. But no region of the West really escaped the process of change. Not only do the other important cities of Italy, like Beneventum, Milan, and Patavium, reveal a strikingly large proportion of non-Italian names in their cemeteries but the very core of central Italy whence the hardiest soldiers were once drawn seems to have become largely foreign; a careful reading of the inscriptions of the Marsi and Vestini will allay the most obstinate doubts on this point. In a word, the whole of Italy as well as the Romanized portions of Gaul and Spain were during the Empire dominated in blood by the East.

And it is accurate to say "the East." An analysis of the given names of the slaves and freedmen of Rome reveals that seventy per cent. are Greek; the indices of the same class for Latium outside of Rome give sixty-four per cent. Greek. Even Cisalpine Gaul, the region where one would expect few Oriental slaves and numerous Northern ones, proves to yield forty-six per cent. Greek names. And it must not be forgotten that many freedmen of Eastern extraction had already acquired pride enough to hide their condition by substituting Latin for Greek cognomina, so that our percentages do not by any means overstate conditions.

It will probably always remain a problem why the Oriental stock continued predominant when in fact the Gallic, German and Dacian wars furnished so very many captives for the block at Rome. The explanation doubtless involves to some extent practices well understood at Rome but which have not happened to be recorded. Perhaps slave-capture and kidnapping persisted in the East during the Empire to an extent that has not been surmised. Perhaps the expanding economic prosperity of the West drew the surplusage of slaves from a decaying East, and perhaps also the Eastern trade encouraged the rearing of slaves for the Western market as one of the regular products for export. As for the northern war-captive we may surmise why his race soon vanished. A chance remark of Caesar[19] for instance reveals the fact that Cimbric war captives were the mainstay of the slave revolt under Spartacus. Those revolters were of course wiped out in the hopeless contest. And this may give us a clew to further surmise. The Gallic and Germanic war captives were hardly suited to the household duties which provided the best opportunities for survival. Rude and strong, they were probably sent to the roughest service in the mines and in the galley. There they worked themselves to an early death knowing nothing of wife and offspring and caring for nought but possible revenge and improbable escape.[20] Their course was soon run. That inscriptions say little of them is not to be wondered at. Such we must assume were in part the conditions and

[19] *Bell. Gall.* I, 40, 5.

[20] Strack, *Hist. Zeitschrift,* CXII, 9.

practices that eliminated the Northern captive and encouraged the multiplication of the Oriental. At any rate the testimony of the inscriptions that the latter overwhelmed Rome cannot be disputed.

It would be interesting to know how far the social transmutation we have tried to follow accounts for the fundamental changes in the Empire. Was not absolutism inevitable when the Italian, who had so equably combined liberty with law, gave way to impulsive and passionate races[21] that had never known self government? Did the emotional and mystical religions of the East spread westward and capture the Roman empire as the Orientals who lived by faith and intuition displaced the rationalistic Occidental? Did the literature of the later day lose its originality because a new people came to copy its forms without comprehension of its spirit? Did Rome's capacity to govern fail because the people of the iron will, indefatigable purpose, and prudent vision that had built the state bequeathed its government to men of softer fibre? Such questions lead far afield, but the questions themselves indicate the direction that historians may expect to take in accounting for some of the economic changes of the Empire.

[21] In *Pro Flacco*, 17, Cicero characterizes with much amusing exaggeration the *ingenita levitas et erudita vanitas* of the Asiatic Greeks, making the striking statement that "whenever our political assemblies are thrown into confusion it is usually people of this race that have caused it."

CHAPTER XI

Industry at the End of the Republic

Recent students of Roman industry have disagreed fundamentally regarding its scope, its aims, and processes, some[1] comparing it with the primitive methods of an undeveloped rural society, and others applying to it the language of the intricate industrial system of modern times. This disagreement is of course largely due to the inadequate information found in the ancient writers, who were for the most part statesmen interested in political history and who concerned themselves little with the occupations of slaves and freedmen. Except for some agricultural treatises, the volumes of Frontinus on Rome's water supply, and a few books of Pliny devoted to the technical methods of production, Roman writers have left the economist to the mercy of parentheses, obiter dicta, and the mute objects brought to light by the excavator's spade. If progress is to be made in this nebulous subject a patient reckoning with the evidence of archaeology is essential.

It is my intention in this chapter to examine several typical industries, especially those that have provided

[1] Cf. Rodbertus, *Jahrb. f. Nationalök.* IV, 341; Bücher, *Entstehung d. Volkswirtschaft*[4], 1904, p. 117. The opposite view is held by E. Meyer, *Kleine Schriften*, pp. 79 ff. and 169 ff. The advocates of both views have gone to untenable extremes. A part of this chapter has appeared in *Classical Philology*, 1918, pp. 155–168.

some record of themselves in the form of trademarks and makers' signatures,[2] in order to procure definite data regarding the scale of production, the degree of centralization, the extent of the market, and the class of people involved in the production of them. In the next chapter by way of corrective and a supplement I shall attempt a survey of the economic structure of Pompeii, the only Roman city that has survived to such an extent as to permit a reliable reconstruction, and to this I shall append a summary of such conclusions as seem to be justified.

It may be said at once that in general the Roman producer was much nearer the consumer than he is to-day, that the handicraftsman who sold in his small artisan-shop the product of his own labor was the typical maker and merchant and that a fullfledged factory system of production emerged only in certain favorable circumstances. What these were may be gathered from the examination of the individual industries which follows.

The table-ware that was most popular in Augustus' day was a *red-glazed pottery* ornamented with designs in low relief and called, after the most important city of manufacture, Arretine ware.[3] It frequently bears the stamp not only of the manufacturer but also of the particular craftsman who designed the piece, or rather the mold from which the piece was turned; for the processes

[2] Such inscriptions have been collected in the fifteenth volume of the *Corpus Inscriptionum Latinarum.*

[3] See *C.I.L.* XV, 702 and XI, 1081; Chase. *Catalogue of Arretine Pottery* (with bibliography), 1916.

were those of mass-production in a factory rather than of individual craftmen's shops. The designer, for instance, produced a variety of stencils, probably in clay, with patterns of leaves, geometrical designs, or human figures posturing, etc., and with these he would stencil running friezes, not into each bowl, but into a mold which could serve for the production of hundreds of bowls. The designer was a trained craftsman who could model in clay and who had some taste in the composition of patterns, but we need hardly suppose that he was an original artist like the men who so frequently produced exquisite work in the famous Greek vases, since in Arretine ware the patterns were usually borrowed from those of silver plate.

To judge from the instances in which we can actually apply a test to the form of the signature,[4] the designer was usually a slave or a freedman. If the designer was a slave we may be fairly sure that the ordinary laborers were. The owners of the factories were of course Roman citizens, but it is surprising how frequently they bore a foreign cognomen, a fact which implies that they or their ancestors of no remote date had come up from slavery. Indeed some of the owners appear to be the very persons who designed the patterns of an earlier style, an indication that slave-artists sometimes secured their freedom

[4] See *Am. Hist. Review,* 1916, p. 693, for criteria; also Oxé, *Rhein. Mus.* 1904, 108. The pottery produced at Cales two centuries earlier was designed almost wholly by the shopowners who were free citizens. see Pagenstecher, *Die calen, Reliefkeramik,* pp. 148 ff.

and a sufficient competence to gain possession of their master's factories.

The extensive proportions of some of the factories are proved beyond a doubt. So, for instance, the ware of certain firms has been found, not, to be sure, over the whole Roman world—for each firm seems to have supplied the regions opened by the natural arteries of trade—but at least over half the Mediterranean basin. Indeed for one period it is true that the potteries situated in three districts, i. e., near Puteoli, at Arretium, and in the valley of the Po, supplied the whole demand for moderately good table-ware throughout the Empire, excepting only the southeast. The scale of production[5] is also indicated by the great number of workmen engaged in certain firms. That of Cornelius, for instance, has provided the names of some forty designers. To be sure, they were not all contemporaneous, but at any rate a single designer could keep a large number of mixers, potters and furnacemen busy, since presumably he merely made the molds and touched up the designs. Calidius Strigo had at least twenty designers, Perennius as many, and there were a dozen other firms of goodly proportions at Arretium. Finally, mass production with a view to extensive trade is disclosed in the establishment of branch factories in Gaul and elsewhere, the purpose being, of course, to save what was in that day the heavy item of freight. Indeed the

[5] *Notizie degli Scavi,* 1896, p. 455, describes a large pottery. The mixing vat had a capacity of 10,000 gallons. The Gallic potteries also produced on a large scale: Déchelette, *Les vases céramiques de la Gaule,* p. 91.

home factories were eventually put to rout by these new ones, whether because the clays of Gaul were better, the makers more enterprising, or the provincial market more conservative when fashions began to change in Italy. So, for instance, a consignment of red ware that had reached Pompeii shortly before the eruption—the box had not yet been opened—contained more Gallic pieces than Italian, although the box had apparently been packed at Rome.[6]

In this industry, then, we find the machinery of an extensive factory production of articles intended for wide distribution. Of course the student of Roman society sees in this instance an exception to, rather than an example of, the usual rule, but it is apparent that conditions here favored the development of large-scale production. Two elements were of prime importance. One was the quasi-trade-secret involved in the making of the paste, for, though there was no copyright and this particular clay could be and in fact was manufactured in several places, exact knowledge of a rather intricate formula was after all essential. Secondly, a designer of some skill, training, and taste was required; consequently competition could not spring up over night, and the expense of keeping a skilled designer naturally suggested the advisability of gathering under him enough unskilled labor to occupy his time. Hence it is that this industry developed in a way that was rather unusual in the Roman world.

By way of contrast both in workmanship and in conditions of production it is interesting to compare the manu-

[6] Atkinson, *Jour. of Roman Studies*, IV, 27.

facture of another article of pottery, namely, the ordinary *clay lamps*,[7] millions of which must have been manufactured every year and sold for a very few cents apiece. Many of these lamps have a little decoration, but seldom does a pattern show any real artistic worth. They were turned out in molds by an ordinary potter, and the clay paste was little better than that used in good roof-tiles. Furthermore, they were so cheap that it would hardly have been worth while to ship them any considerable distance. To be sure, the recurrence in all parts of the world of certain types of lamps bearing a well-known firm-name succeeded until recently in deceiving archaeologists into thinking that certain firms commanded the trade over wide areas. But it has now been proved[8] by measurements that the greater number of these lamps came from local potteries that simply used various shapes successively popular at some center like Rome, importing the originals and using them, firm-name and all, as molds. Since, then, in the absence of protective copyright, there was here no difficult formula or trade-secret to aid in excluding competition and no great economic inducement for gathering considerable labor, the industry scattered in such a way that local potteries usually supplied the needs of each community. Concerning the class of labor used we have some indications. The firm-names are usually in briefest form, a cognomen alone, though in early examples good Roman gentile names occur. Judg-

[7] *C.I.L.* XV, 784; Fink, *Sitzungsb. Akad. München*, 1900; Loeschcke, *Keramische Funde in Haltern*, p. 210.

[8] Loeschcke, *op. cit.* p. 210.

ing from the frequency of Greek cognomina we may suppose that the potteries which produced these cheap wares fell into the hands of the class that in general managed Rome's industries, at least in the Early Empire, i.e., the freedmen.

Certain developments of the *glass* industry in Augustus' day[9] bring us back to conditions not unlike those of the red-glazed pottery. Glass-making apparently grew out of the art of surface-glazing in Egypt at a very early age, and in Roman times the glassware of Alexandria, chiefly mosaics of varicolored glass pastes, was shipped the world over. It is likely that there were very large factories in Egypt, but since the ware bears no trade-mark and since it was successfully copied at Rome and elsewhere, we are quite unable to determine the proportions of such factories. There is, however, a translucent glass of Rome, usually figured and signed, and apparently made with the blow-pipe, that provides some little information of value. When Strabo says that in his day certain new inventions at Rome had greatly increased the production of glass and brought down the price to a cent or two per article he may well be referring to the discovery of the process by which a bubble of glass paste was manipulated with the aid of a blow-pipe. It is obvious why this method revolutionized the production of clear glass. Hitherto for the making of bottles and for many shapes

[9] Kisa, *Das Glas im Altertum*, pp. 261, 702; Eisen, *Am. Jour. Arch.* 1916, p. 143; Morin, *La Verrerie in Gaule*, 1913; *C.I.L.* XV, 871.

of beakers a new mold had to be shaped for each individual article, a labor-consuming process, and one which, because of the sand and clay of the mold, left the article far from clear. With the blow-pipe a permanent outer mold was used which might contain the figured pattern—figures were the fashion in all wares of Augustus' day—and the glass-blower with the use of his pipe could force the paste to fill the mold and assume the pattern desired. The product was clearer and smoother and the work was far more rapidly done than by the old method. It is not surprising that the makers of the new glass, inartistic though it was, showed such enthusiasm over the new process as to put their names in prominent letters upon the pattern. The ware, which can readily be distinguished, is not only found widely distributed, but the maker's name is printed in Greek as well as in Latin, apparently on the supposition that the articles would find a wide sale.

Here again, as in the case of Arretine ware, conditions favorable to monopolistic production existed. Whether or not modern methods can extract glass paste with ease from the sands and pozzolanas of Italy everywhere, it is clear from Strabo and Pliny that the ancient glass-maker had great difficulty in finding a tractable sand. This alone prevented much competition. Moreover, the new invention made a peculiar distribution of specialists necessary. Hitherto the workman who handled the hot glass paste at the furnace must also be skilled at molding it quickly into the desired pattern. By the new process one designer could shape any number of exterior molds, and

any number of glass-blowers might produce the articles on these molds, given only special skill in glass-blowing. Thus again it was good economy to gather labor into one place and about one designer.

There is one additional fact of interest here that deserves mention in passing. The manufacturers of this glass bear Greek names and call themselves natives of Phoenician Sidon. It may be that some of the factories were in Sidon; at least Ennion's work is found mainly in that region. On the other hand, the work of Artas, Neikon, and Ariston appears mostly at Rome. Either we are dealing with an eastern product that captured the trade of Rome, or, what is more likely, we are dealing with skilled artisans and manufacturers who, realizing that Rome offered the best market, set up their main factories in Italy. Perhaps these are the factories on the Volturnus River mentioned by Pliny.

The *brickmaking*[10] industry was another which tended toward factory and monopolistic methods at Rome, though for a very different set of reasons. During the Republic the industry found little encouragement. Public buildings were largely made of tufa-blocks, and when concrete was introduced it came to be lined with stone, large blocks or small squares set in cement. Clay was burnt chiefly for roof-tiles. In the early Empire till Claudius' day the stone facing and open reticulatum still continued in vogue, though broken roof-tiles were also introduced for the facing of concrete walls. In the reign

[10] *C.I.L.* XV, 1; Van Deman, *Am. Jour. Arch.* 1912, 247 ff.

of Claudius, however, brick-facing became more general so that brickyards had to supply new forms in addition to the roof-tiles. It was in Nero's reign, especially when, after the great fire, a large part of the city had to be rebuilt, that the brick industry came to its own. It is evident that the brick kilns then in existence had to supply an inestimable quantity of material for the facing of concrete walls, and brick-faced concrete remained the standard material for construction thenceforward.

There were of course both centrifugal and centripetal forces in this industry at Rome as elsewhere. The recipe was centuries old, and by no means a secret. Furthermore, good clays for bricks were abundant. To be sure, the excellent Pliocene shales behind the Vatican that now feed the great kilns of Rome seem not to have been exploited to any great extent in ancient times, but the alluvium of the Anio and of the Tiber which combines the limestone silt of the Apennines with the volcanic pozzolanas of Latium still produces some of the finest red bricks of Rome, and here, to judge from the texture of the old bricks and from the brick stamps, were the chief yards of ancient Rome. That supply was inexhaustible and could not well be controlled by any single firm.

Since the product was too heavy for ready transport, it was not easy for a firm to secure control of the trade over large areas. Only in very few instances do the ancient brick stamps appear widely distributed. Bricks from Roman yards were of course barged down to Ostia, and some wares of the Campanian and even the Ligurian and Gallic coasts went by sea to Rome's seaport and vice

versa, possibly as ballast. Yards on the Tiber above Rome, even a hundred miles away, gained a market down the river, and when a particularly good article was desired by a nobleman for his Alban villa he would pay the expenses of a costly transport from the metropolis; but this list fairly completes the cases of transshipment.

And yet certain brick firms at Rome grew to immense proportions, owing possibly to a capacity and ability to grasp the opportunities offered. Interesting in this connection is the growth of the property of the famous Gallic orator, Domitius Afer. Arriving at Rome a poor man in the reign of Tiberius, he gained wealth and political position by his remarkable gift of speech, ready wit, and calculating devotion to the reigning prince. Like any Roman ambitious to establish a social position, he invested in landed estates, and it was probably in this way that he became an owner of a brickyard, since tile-burning was still looked upon as a legitimate branch of agriculture and therefore respectable beyond the run of ordinary business. The times were auspicious, for bricks were just working their way into fashion. Afer's adopted sons and heirs, Tullus and Lucanus, profiting doubtless by the devastating fire that destroyed most of Rome, perhaps also skillfully using for business purposes the political influence which they both inherited from their ennobled father, extended their enterprises enormously, acquiring, as their trade-marks show, the yards of several different estates which they finally conducted under a score of managers. There is hardly a public or private building of importance during their period—an epoch of enormous

building activity—where their trade-mark is not prominent, if not predominant, among the brick stamps found. These, by the way, are the properties which formed the main group of the imperial yards of a later day, for they passed by inheritance through the hands of Lucilla, the daughter of Lucanus, to her grandson, who became the emperor Marcus Aurelius. In his day, indeed, the brickyards of Rome had largely become imperial property, well-nigh an imperial monopoly, a situation which, however, was largely due to the accident of intermarriage between the families that owned the chief yards at the beginning of the second century and the succession by due inheritance into the family of the Annii.

It is deserving of notice that brickmaking is practically the only industry at Rome in which the aristocrat does not hesitate to display his connections with the profits of a factory. The reason probably lies in the associations with agriculture already mentioned. The Roman noble was supposed to be a landlord, and it was always proper for him to be intimately acquainted with all the processes of agriculture and to develop all the resources of his land, be this by grain- or stock-raising or by turning a clay bank into a tile yard. Indeed Asinius Pollio was one of the first nobles at Rome to have his name stamped upon tiles which he apparently made at his Alban villa, and there is little reason to doubt that the tiles bearing the name of *Tuli* from the vicinity of Tusculum were made at the favorite Tusculan villa of Cicero.

This fact again explains a peculiar business practice in the association of the owner and slave-managers of such

factories, for brick stamps usually indicate the names of both the owner and the superintendent of the yard, the latter invariably a slave or freedman. The practice of course simply continues the conditions that regularly held upon the large landed estates. The landlord at this time seldom leased his lands; he rather cultivated them himself, placing a trusted slave or freedman in charge of his property, a position of considerable responsibility and dignity. It is apparent that the superintendent of the brickyards who was permitted to stamp his name upon the brick with that of his master corresponds in every way to the *vilicus* of the estate.

Regarding the manufacture of *metal-ware* a few definite facts can be elicited from ancient writers, and in the case of bronze and lead-ware, from producer's signatures. Wrought *iron* and steel of excellent quality were made and used in arms and agricultural implements, but since the valved bellows had not yet been invented a thorough melting of iron ore was not yet possible. The Roman manufacturer[11] therefore did not know of cast iron, the cheapest and most serviceable form of the metal. In lieu of thorough melting he had to content himself with the expensive product that could be procured by patient and reiterated forging on the anvil. Delian price lists quote iron at about six dollars per hundred weight, which seems very high when we consider that the Roman procured his copper at very little above the modern price.

[11] Jullian, Art. *Fabri,* Daremberg-Saglio, Blümner, *Technologie,* IV.

In Cicero's day there seems to have been a very remarkable concentration of iron production at Puteoli. Italian iron ore came then as now from the island of Elba off the Tuscan shore. The ore dug there was brought to the mainland and "roasted" until the mass "resembled sponges" with such heat as could be produced in low furnaces. At the time of the Second Punic War,[12] the Etruscan cities still held possession of the iron industries of Italy, producing great quantities of arms and implements; but in the second century Puteoli captured the trade and the industry. Here, according to Diodorus,[13] manufacturers gathered great numbers of smiths who wrought the crude metal into "arms, mattocks, sickles and other implements," which merchants bought and carried into all parts of the world. That Puteoli succeeded Tuscany[14] is not surprising when we consider her wealth

[12] Livy, XXVII, 45.

[13] Diodorus, V, 13. In Cato's day Cales on the border of Campania produced good iron ware. The industry may have spread from there to Puteoli. Of course excellent steel was also made in Spain, Noricum, and in Anatolia, in articles which the Romans always imported in quantities.

[14] Pliny's chance remark that an old decree of the Senate had forbidden mining has led to much futile guessing (Pliny, *N.H.* III, 138; XXXVII, 201). The iron mines of Elba were being worked in Strabo's day, and doubtless were worked as long as they proved profitable. It may be that the Senate had once ordered the mines closed in the third century when the Gauls invaded Italy and found arms in northern Etruria. It will be remembered that Porsenna had previously forbidden the use of iron in Latium except for agricultural implements. Needless to say the Senatorial decree must have become a dead letter as soon

of fuel in the Phlegraean fields, her excellent harbor, her position near the richest agricultural land of Italy where iron tools were especially used, and her place as a distributing center for the armies and navies of Rome.

The language of Diodorus might lead the unwary into assuming a real factory system in this industry, as indeed it does justify us in applying to it the terms of capitalistic industry and international commerce. But we must not infer too much. Since the furnaces could not produce a thoroughly molten ore in large quantities, cast-iron implements which might have been made *en masse* were of course out of the question. Every iron and steel implement was accordingly the product of repeated heatings and forgings on individual anvils. There was therefore in all probability little division of labor, and little use of labor-saving machinery except such as any simple smith would employ. If some manufacturers, as Diodorus implies, took advantage of Puteoli's excellent position, to gather there under one roof a large number of skilled smiths, slaves or free, they might well be called capitalistic producers, but the essential elements of a factory system, such as we have found in the pottery and glass industries, cannot without further evidence be assumed.

as the Roman confederacy had complete control of Italy. The law limiting the output of gold at Vercellae, also quoted by Pliny (*N. H.* XXXIII, 78), was probably intended to prevent a sudden fluctuation of prices such as had taken place when gold was discovered at Aquileia (Pol. XXXIV, 10). Such gold placer-mines did not continue to produce long, and no repeal of the law was therefore necessary, a thing which seems to have misled Pliny into thinking these laws were still in force in his day.

In these circumstances it is not surprising that all the large cities reveal in their inscriptions the fact that individual producers of iron implements continued to prosper everywhere.[15] They were the artisans who kept a small shop with a single forge where with the aid of an apprentice-slave or two they made their own specialty and sold it. In the Vatican gallery there stands a typical illustration of such a shop represented upon a tombstone.[16] On one side is pictured the smith forging a blade, on the other he is seen by the side of a small rack of knives and sickles making a sale to a customer. Nothing could better illustrate the general condition of Roman industry. Very many of the tombstones of Roman artisans reveal this same system prevailing in the iron trade in that they mention the special craft of shield-maker, sword-maker, sickle-maker, helmet-maker, and the like.

In the production of arms and armor the participation of the government altered conditions in the trade, but this probably did not interfere seriously with private enterprise until late in imperial times. Every army[17] had its

[15] *C. I. L.* VI, 9886, 2196, 1952, 9442, 9260; II, 3357; X, 3984, 3987; Cic. Cat. I, 8, mentions a house at Rome *inter falcarios*. The Roman gild of *fabri* is mentioned in *C. I. L.* VI, 1892. Pompeii seems to have had hardware stores without forges; probably most of the iron ware of that town was supplied from the factories of Puteoli.

Varro also mentions travelling smiths that went from farm to farm, and some landlords found it worth while to own slaves trained as smiths, see *C. I. L.* VI, 6283–5, and Cic. *Pro Plancio*, 62.

[16] Amelung, I, 275.

[17] Vegetius, II, 11; Livy, XXVI, 51; XXIX, 35; Polyb. X, 17.

group of smiths behind the lines not only to make the artillery of the army but also to mend shields, swords and helmets and to supply spear-points in great abundance. But the artisans at home, during the Republic at least, did no little work in filling the demand for arms since every legionary soldier[18] had to provide himself before departure with a helmet, a breastplate or coat of mail, a standard sword, and a steel-pointed lance. It is probable too that the armories[19] which every municipality of any size kept well stocked against sudden riots or invasions bought their supplies from private shops or large producers. At any rate the armamentarium[20] of Pompeii which was recently found had no place for production in the vicinity. In the late Empire, as is well known, the government assumed the task of producing all the arms and armor needed by its forces and erected for the purpose large state factories in several cities throughout the Empire.

The manufacture of *bronze* and copper-ware[21] on the other hand seems to have developed a real factory system, at least in Capua. At the end of the Republic and in the early Empire there was being produced a great abundance of bronze utensils frequently of seemly shape and artis-

[18] Tac. *Ann.* I, 17.

[19] Cic. *Pro Rab.* 20; Tac. *Hist.* I, 38.

[20] *Notizie degli Scavi,* 1916, p. 432.

[21] See Willers, *Bronzeeimer von Hemmoor,* p. 213; *Neue Untersuchungen; Studien z. Griechische Kunst,* p. 156; Mau-Kelsey, *Pompeii,* pp. 369–79, for illustrations. See also Pliny, *N. H.* XXXIII, 130.

tically ornamented, such as wine-containers, platters, ladles and bowls, not to speak of kitchen pots and pans, and all of these bear producer's names which recur with remarkable frequency. This ware, quite uniform in workmanship, had been found in abundance not only in Italy[22] but everywhere in Germany and as far north as Scotland, Sweden, and Finland. It is probable that we should look to Capua for the source of these articles. There the Etruscans in the earliest times created a bronze industry; there Cato[23] advises his readers to buy "bronze buckets, containers for wine, oil and water, and all other copper ware"; there Pliny says the best copper-ware of his day was still produced, and it was there that medieval churches had their *campane* made. The conjecture that Capua was the producing center of the widely scattered ware has practically been proved by finding on Capuan tombstones the frequent occurrence of the family names which these articles bear: Cipius, Oppius, Nasennius, and others.

Willers, who has studied this ware, believes that the producing factories were large enough to employ thousands of workmen. Considering that during the Middle Ages copper utensils were remelted whenever found, the survival of many dozens of specimens throughout Europe would seem to justify his conclusion. He also seems to be justified in employing the term "factory." The process

[22] *C. I. L.* XV, gives the Roman inscriptions.

[23] Cato, *R. R.* 135; Pliny, *N. H.* XXXIV, 95; cf. Horace, *Serm.* I, 6, 116.

of production involved in making these articles was more elaborate and required a greater number of special artisans than in the iron industry described above. The metal was melted, mixed with proper proportions of tin or zinc, cast in molds that only trained artists could produce, and then submitted to trained artisans who polished, carved and forged. Here there was surely not only the investment of large capital but the far-reaching division of labor which characterizes the modern industrial factory.

The reasonable surmise has been made that the existence of these foundries at Capua made possible the extensive employment of bronze in the statues, busts, and objets d'art which have been found in abundance at Herculaneum and Pompeii. To be sure, archaeologists[24] are still prone to ascribe many of these to the studios of Athens, but busts of men like Caecilius Jucundus, the Pompeian banker, prove that native work of very good quality could be produced in the vicinity. It is not improbable that in Cicero's day and during the century following the Capuan foundries cast a large number of statues for Greek and Campanian artists residing at Naples, and that much of the work usually assumed to be imported will soon be accepted as native. Certain it is that much of the beautiful metal furniture of Pompeii, the bronze lamp stands, tables, braziers and tripods, which have influenced later decorative art to such an extent, was

[24] Deonna, *Statuaria* in Daremb.-Saglio; *Jour. Hell. Stud.* 1903, p. 217.

made possible by the high development of the bronze industry at Capua.[25]

In the manufacture of *water pipes*—always made of lead—the factory system however failed to emerge, despite the fact that large quantities in standard sizes were frequently needed. Here we get our information partly from Frontinus' business-like account of the water supply of Rome, but mainly from the stamps upon the pipes which indicate their owner and maker.[26] In general, the imperial water-bureau provided for the main aqueducts of Rome, and for the distribution of water to all public places, that is, to the imperial palaces, to the public baths and gardens, and to a large number of free public fountains whence the poor carried their water. In Frontinus' day the bureau owned some seven hundred slaves to do the requisite work, a part of which consisted in making and laying the lead pipes of the public service; indeed such pipes usually bear the name of the maker besides those of the water commissioner and the emperor. And here it is interesting to find that the bureau not infrequently had to employ the services of independent plumb-

[25] Unfortunately we have no way of determining what class of labor was used in this Capuan industry, since we do not know whether the signatures belonged to the factory owner, the designer or the workman. It is not unlikely that in Campania where Greek ideas still largely prevailed many free workmen labored in the shops, especially since frequent expropriations by Sulla and the triumvirs had removed many natives from the land.

[26] *C. I. L.* XV, 906 ff.

ers,[27] as Frontinus himself implies in his statement that he is compelled to let contracts for part of his work.

At Rome, however, the larger number of pipes was contracted for by private individuals who had purchased the right to tap the public water-main, a group that included most of the well-to-do of the city. Such pipes were quite regularly stamped with the owner's name in order to afford ready identification in case of repairs—for often several lines lay parallel to each other under the street. Usually the maker also took this occasion to have his own name recorded. Now these names reveal some singular circumstances. From the great mass of material recovered and the numerous names recorded, it does not appear that any one firm secured large contracts or tried to build up a stock for large orders, although Frontinus shows that certain standard sizes were in demand. A maker's name in fact very seldom recurs in two widely separated regions of the city, and furthermore when a contract is large it is apparently divided among several plumbers.[28] Moreover it is clear that the names occurring upon the pipes were almost invariably made a part of the original mold, which indicates that the pipe was made to order and that no stock was accumulated. The system in vogue therefore was this: small shop-owners with a few slaves, with no large capital, and with few facilities, took the orders when they came, bought

[27] *C. I. L.* XV, 7279–83, 7289, 7309. Compare 7325 with 7523 and 7333 with 7409.

[28] *C. I. L.* XV, 7369–73.

the metal,[29] melted it and rolled it into plates which were cut into the requisite strips and soldered into pipes, and finally laid and connected these. That is to say, the plumber was also the maker of the pipes. Why this time-consuming system was conserved it is difficult to understand. Of course since the city laid few mains, and the private citizen who desired water had frequently to conduct it for long distances, it was exceedingly important that the owner's name should be stamped in enduring form, a point certainly secured by this system; but other ways of attaining the same result are conceivable. It would seem that the inertia of this industry is simply an illustration of how tenaciously the small-shop system conserved itself against obvious economic inducements toward centralization—a phenomenon too well known and recognized to need further illustration.

That the people engaged in this trade, if independent shop-owners, were frequently freedmen, or of the same general class as freedmen, is shown by the frequent recurrence of the Greek cognomina. Often indeed they were simply practicing a trade which as slaves they had learned in the imperial or municipal bureaus. Thus the plumber who laid the pipes of the great villa on the Appian Way[30] was an imperial freedman, and at Ostia several plumbers bear the descriptive name of Ostiensis in lieu of family names.

[29] Lead was very cheap, since most silver mines produced more lead as a by-product than the market needed. Pliny, XXXIV, 161, quotes the price of pipe-lead at one cent the pound.

[30] *C. I. L.* XV, 7799.

Finally, diverse tendencies of industry may be illustrated from the activities of the jewelers and *goldsmiths*. There is no evidence that wholesale production played any part in this trade. Rings and pendants and ornaments of precious stones[31] were generally made and sold in small shops, though we sometimes hear of *negotiantes* who apparently were not artisans. Since the raw material was costly, an extensive system of custom-production usually prevailed, and we frequently hear of individuals bringing their old gold or uncut stones to the gold-smiths to have them made into jewelry.[32] But this was by no means the only practice. The cases of lawsuits cited by the jurists[33] also imply that goldsmiths were at times handicraftsmen who owned their raw material; and the tombstone of many jewelers which record large legacies[34] or enumerate long lists of freedmen who had once served them prove that these men often possessed considerable wealth. In this industry furthermore, as in many others, wealthy patrons often equipped an artisan's shop for a skilled slave or freedman, as a profitable way of investing capital. An inscription[35] raised by such a patron to the memory of his freedman reads in part:

[31] Gummerus has recently discussed this matter in *Klio*, vols. XIV and XV.

[32] Plautus, *Men.* 525; *Digest*, 19, 2, 31; 34, 2, 34; 41, 1, 77; 19, 22, 1. Diocletian's edict assumes custom work in this industry, but at a very late date when free labor was being suppressed.

[33] *Digest*, 19, 5, 20, 2.

[34] *C. I. L.* VI, 2226, 9433, 9544–45, 9547, 9950, 30973.

[35] *C. I. L.* VI, 9222.

> "To M Canuleius Zosimus—The patron to his freedman. He did nothing contrary to the wishes of his patron. Though he always had much gold and silver in his possession he coveted none of it. He excelled in carving Clodian ware."

Closely related to the jewelers, sometimes identified with them, were the *gemmarii,* cutters of intaglios and cameos.[36] In ancient days this art assumed very significant proportions for the reason that every man of the least consequence must have his own signet ring, and in the later days of the Republic the aristocratic Romans commanded the services of the very best gem-engravers for these seals, many of which are still treasured as works of exquisite art. There are of course all grades of work. Dioscurides, who was summoned from the East to make the imperial seal, was looked upon as an artist of high rank, and he doubtless did not need to keep a shop. He is a fair instance of the Greek and Oriental artisan who drifted to Rome with the tide of wealth. At the other extreme are the craftsmen known from humble tombstone inscriptions who designate themselves as gem-engravers[37] from the "Sacred Way," the jeweler's street. Here was apparently a row of shops where such craftsmen took orders and worked. Their names seem to indicate that they were freedmen. Possibly they had been trained as slave apprentices and had saved enough by

[36] Furtwängler, *Antike Gemmen.* p. 300, and plates 49 and 50. See also *Arch. Jahrb.* 1888.

[37] *C. I. L.* VI, 9433–6, 9545–49, 33872.

extra labor to purchase freedom and set up shops of their own. Finally, there is a peculiar group of signatures written in Greek, though with Latin praenomina. Presumably these designate men who were also immigrant artists but who had gained citizenship—the right to use the Roman form of name—by direct gift of the state, perhaps in recognition of their work. That is to say, they use the Roman praenomen to distinguish themselves from the freedmen, but write the name in Greek as a means of suggesting the fact that their work is not the ordinary crude native cutting. The signatures seem to indicate that for one fine craft at least Rome had to draw largely upon the artisans of Greece and the East. The more ordinary grades of work fell to the slave apprentice, and the business of the small shops was conducted here, as in other trades, by the freedman class. Production on capitalistic lines was naturally out of the question, not only because customers insisted upon having the special attention of some recognized artist, but because most of the work had to be done to order.

CHAPTER XII

INDUSTRY, *Continued*

INFERENCES drawn solely from the larger industries must perforce lead to conclusions that are partially incorrect. It is fortunate therefore that we are enabled by the survival of the skeleton of Pompeii to examine in some detail the economic structure of an ancient town and thus to round out our conceptions of industrial conditions. Pompeii[1] was not in every respect a typical Roman city. A small seaport town, it doubtless served commerce rather than industry. Living in a region that was still half-Hellenic in Cicero's day its inhabitants had learned to look upon manual labor with a kindlier eye than did the old fashioned nobility of Rome. But the difference should not be overemphasized. The dominant class in Pompeii's politics and society were the well-to-do landowners who had descended from Sulla's Roman veterans, and these of course had brought Roman folkways with them. The differences in size caused no great dissimilarity in their economic régime: a city of twenty-five thousand souls was rather more significant in those days of evenly distributed production than it is now. If we could recover a few blocks of a typical street of Nero's Rome, we should find difficulty in distinguishing its system of shops and booths from that of Pompeii. The picture of

[1] A portion of this chapter has appeared in *Class. Phil.* (1918, p. 225 ff.).

the city disclosed by the diligent Italian excavators may with this word of caution be used to illustrate Roman economics.[2]

At Pompeii, as was usual in the ancient walled towns where space must be carefully husbanded, shops lined all busy thoroughfares, while houses of residence subsided to the centers of the blocks. Since this system obtains throughout the city we may examine a typical insula,[3] No. 2 of Regio VII, in order to trace some lines of connection between the industries and the social classes. The insula contains about forty shops and booths strung out mainly along the busier streets—*Stabiana* and *Augustali* —beside some ten residences crowded into the center with hallways usually opening into one of the quieter streets. The first large house on via Stabiana (No. 6) belonged to Paquius Proculus, a very popular baker, who reached the high office of the duumvirate apparently by an overwhelming majority,[4] and was proud enough of the fact to have his portrait, genial, and sufficiently apologetic if rather unintellectual, painted, apparently in white toga, upon the wall of his tablinum.[5] With this house he combined the adjacent one, sacrificing the gardens of both

[2] The official reports of Pompeian excavations are not adequately published from the historian's viewpoint. Very often objects of little artistic value are not reported though they might prove of great use to the student of economic and social history.

[3] See map in *C. I. L.* IV, Suppl. II; Niccolini, *Le case ed i monumenti,* II, 42–5, and III; Fiorelli, *Descrizione di Pompei,* p. 184.

[4] *C. I. L.* IV, 1122.

[5] Mau-Kelsey, *Pompeii*[2], p. 477.

for the mill and workrooms of his bakery. And yet, though the owner was willing to live within sound of his mills, he did not choose to display his wares directly in the five shops that lined the front of his home. These shops are all independent of the house. To judge from an election notice[6] which appears nearby, Proculus owned a fairly large bread and cake-shop on the opposite corner (Reg. IX, 3, 10) to which also was attached a bakery with five mills. Here there was less danger perhaps of flecking his judicial toga with the dust of his calling. Be that as it may, it is interesting to find that *duumvir juredicundo* actively engaged in an expanding business of milling and baking. He may fairly represent the prosperous industrial class to which the petty aristocracy of Pompeii's municipal officials largely belonged.

No. 11 is a house of moderate size which was turned into a dyeing establishment in the early empire when the clothing industry became important in Pompeii. It is indeed characteristic of the conservative industrial tendencies of Pompeii that the proprietor did not build a place to suit his needs but installed himself in a house built for domestic use, where, of course, the rooms were by no means adapted for his purposes. The proprietor, like Proculus the baker, apparently used part of the house as a dwelling-place.

The next residence of note is No. 16. It is spacious, contains a handsome peristyle, and has supplied several noteworthy frescoes to the Naples museum.[7] Its owner

[6] C. *I. L.* IV, 3651.

[7] *Naples Mus. Cat.* Nos. 1381, 1383, 1385.

was M. Gavius Rufus, a man of some wealth, who was once aedile and who, whether or not with success, offered himself as a candidate for the duumvirate. What his source of income was we do not know; his house is not physically connected with any shop or booth.

Next door (No. 18) lived C. Vibius, probably he of the cognomen Severus, since the dozen election placards of Vibius Severus are all found in the immediate neighborhood. If so he also entertained the ambition of becoming duumvir. He too turned the rear part of his house into a workshop, for the chambers beside the peristyle were used as store-chambers whence there was direct communication with the shop upon the back street.

N. Popidius Priscus dwelt in the next house (No. 20, Casa dei Marmi[8]), the largest and most handsomely decorated in the block and apparently long in the possession of the family, since the family name appears in Oscan on an old stone inscription in the peristyle.[9] Yet the source of this display is readily disclosed to anyone who will follow the three several doors that lead from the house to various shops in other parts of the block. Indeed there was found in the house a bronze stamp such as bakers use to trade-mark their cakes, and this stamp bore the name of Popidius. The excavator was therefore not surprised to find a door leading from the atrium of this house into a prosperous bakery at the corner. Here were five mills of the usual type made to be worked

[8] Helbig, *Wandgemälde*, 475.

[9] There were magistrates of this family before Sulla took the city; Conway, *Italic Dialects*, 61.

by horse-power, a cunningly contrived machine for kneading dough, a baker's oven having a capacity of perhaps two thousand loaves per day, and a number of cake forms, but no display counters nor doors inviting the purchaser. Popidius may have had his sales-shop elsewhere, or he may have disposed of his wares at wholesale. But this was not his only investment. In the rear of his house a door led to a spacious barroom (No. 47) with many wine jars and a hospitable double door upon the street. Finally another rear door led to a complex of rooms (No. 38) which appears to have constituted a workshop terminating in two salesrooms upon the street—but we do not know what was produced and sold here. Whatever the various sources of his income, the sum total was not small, judging from the magnificence of his house.

No. 35 is a house of moderate size which is characteristic of a very large class of houses at Pompeii, in that it connects directly with two workshops upon the street, Nos. 27 and 30. The former contains a fixed workbench and a small furnace in one of its two small rooms, but there is nothing in No. 30 to indicate the character of its products.

Such were the houses that hid within and fed upon the encircling row of petty shops bordering the four streets. They give us a picture—proved true to type by the study of other blocks—of a society somewhat less provincially aristocratic, a trifle more worldly-wise, than that which Rome's staid literature deigns to notice. These men who had their courtyards decorated with marble cupids and

fauns, their dining-room walls frescoed with legends from Homer and Euripides, the men whom their fellow-townsmen elected to the highest municipal positions[10] of trust and to expensive honors, these leading citizens of Pompeii were, to some extent, her prosperous bakers, potters, and tanners, and they did not scorn to draw their livelihood from shops and booths if only the accumulated profits summed up large enough.

But the greater number of doors in this block lead merely to independent one-, two- or three-room shops and other small shops connected by a stairway with a balcony room or two. Here it was that the "other half," or rather the other nine-tenths, lived packed in the narrowest of quarters with the typical work- and salesrooms upon the street. These are in fact the very essence of ancient industry with its inordinate number of petty specialists. Their purpose is often betrayed by two distinguishing marks: some remnant of a workbench, forge, or furnace, which proves the inhabitant an artisan, and a peculiar wide lintel with grooves, which shows that in the daytime the shop stood wide open to invite customers. The

[10] We know the houses of several other magistrates and candidates: Vedius Siricus, *duovir* in 60 A.D., lived at Reg. VII, 1, 47, well known for its mosaic of *Salve Lucru* (see Overbeck-Mau, p. 320); L. Popidius Secundus, an *Augustianus* and *duovir*, lived in the beautiful "house of the citharist," Reg. I, 4; M. Lucretius Fronto in Reg. V, 4, 11; Bruttius Balbus at Reg. IX, 2, 16; Cuspius Pansa, four times *duovir*, in the modest house at IX, 1, 22; Albucius Celsus in the "house of the silver wedding" (Mau-Kelsey, p. 301); and Trebius Valens in the charming house recently found at Reg. III, 2, 1 (*Notizie*, 1915, p. 416).

well-known picture of the cupids as goldsmiths[11] gives precisely the right conception of this kind of industrial life. Various little workmen are busy at the furnace, the anvil, and the workbench, but at the center one of them is engaged in making a sale. Except for the fact that Pompeii had a greater proportion of non-slave artisans than the metropolis, these combination workshop-sales-rooms were typical of all normal Roman industry. It was from shops like these that the Roman usually got his shoes and his togas, his jewelry and his lamps, his furniture, the ornaments of his house, and his kitchen utensils.

The first impression then upon walking around any normal block at Pompeii is of a busy hive with countless small cells where poor artisans make and sell their few specialties, but where the space within is occupied by prosperous men who in part direct and live upon the fruits of this petty industry. A larger survey of the whole city, however, will lead to a more complex definition of the city's industrial life; and for such a survey it it of first importance to examine the articles of commerce discovered in the shops and in particular the articles that bear inscriptions and trade-marks. The ordinary terra-cotta tableware[12] was certainly imported. A large part of it came from the well-known potteries of Arretium, while the firms of Puteoli[13] and Capua and the new pot-

[11] Mau-Kelsey, p. 334.

[12] *C. I. L.* X, 8055–6; Atkinson in *Jour. Rom. Studies,* IV, 27.

[13] *Bull. dell' Instituto,* 1875, p. 242; Pliny, *N. H.* III, 82, mentions the pottery of Puteoli that was made from clay found on

teries of Gaul supplied the rest. There is no evidence that Pompeian potteries made any "Arretine" ware. Indeed even the simple *mortaria*[14] that are so numerous in Pompeii were generally imported. At least many of them bear the mark of famous Roman tile-makers whereas none has a brand known from native ware.

On the other hand all the very crude and bulky terra-cotta articles such as tiles[15] and wine jars were made nearby. In fact the ware of L. Visellius, most popular at Herculaneum, is the only one that extends freely over several Campanian towns. It is noteworthy also that while more than fifty producers supplied such ware only two or three makers are represented by any considerable number of stamps. There was therefore no monopoly in these articles. It is very probable that, as at Rome, tile-making was considered practically a branch of agriculture and that any farmer who found that he had suitable clay was apt to burn tiles and jars for his own use and also if convenient for neighboring customers.

The splendid silver plate[16] that the rich Pompeian set upon his table was in large part the product of Campanian shops. The only piece of the Boscoreale trove that bears a maker's signature is a mirror signed by a Roman citizen, presumably of freedman stock, M. Domitius Polygnos; all the marks of ownership are Latin; and two of the

the island of Ischia. Cumae and Sorrento also produced this ware (Martial, XIV, 102, and Statius, *Silvae,* IV, 9, 43). Cf. Dubois, *Pouzzoles Antique,* p. 121.

[14] *C. I. L.* X, 8048.

[15] *C. I. L.* X, 8048–52.

[16] For the Boscoreale treasure see *Mons. Piot.* V.

finest cups portray Augustus and Tiberius in scenes taken presumably from Roman triumphal arches.[17] If these excellent pieces could be made in Italy, the rest may well have been, though of course some of the patterns are obviously Alexandrian. Even Pompeian craftsmen may have produced work of this kind, for there were silversmiths[18] in the town. Perhaps we may go a step further and say that the production of such ware had passed to a large extent out of the hands of independent handicraftsmen into the control of large producers. If in such shops the principle of division of labor had been introduced so that each workman performed a set task instead of producing complete articles, we can explain why so few of these elaborate pieces are signed, why themes and designs from Egypt, Syria, and Rome occur side by side, why on certain pieces the engraving, the molded design, and the emblemata often fail to harmonize, and finally why Italian inscriptions mention specialists in silver-work who obviously were tied to some very circumscribed part of the work, as for instance the *figurator,* the *flaturarius,* the *tritor,* the *inaurator,* and the *caelator.*[19] Pliny indeed seems to refer to shops of large output when he complains that the fashion in silver plate changed, demanding *nunc Furniana, nunc Clodiana, nunc Gratiana.*[20] It is

[17] Mrs. Strong, *Roman Sculpture,* p. 83; Pliny, *N. H.* XXXIV. 47.

[18] A *caelator* is mentioned in *Notizie,* 1912, p. 69.

[19] Schreiber, *Alexandrinische Toreutik,* p. 132; Drexel, *Bonn. Jahrb.* 1909, p. 179.

[20] Pliny uses the phrase *genus officinae* in this passage (*N. H.* 33, 139); however individual craftsmen would naturally accept the styles set by large producers. One such smith (VI, 9223) claimed preëminence in *caelatura Clodiana.*

doubtful whether individual craftsmen could so have influenced the market.

What has been said in the preceding chapters regarding the iron and copper industries is in accord with conditions at Pompeii. The city was too near the iron and bronze factories of Puteoli and Capua to necessitate much native work in these articles. Instead of many small shops that combined production and selling therefore we find what seem to have been general "hardware shops" which had no forge or workbench.[21] In such places are found despite centuries of looting a few farm implements, locks and keys, kitchen utensils, pieces of harness and even bronze trinkets and cheap objets d'art.

Where and how the great abundance of very elaborate Pompeian furniture was manufactured we are of course not told, nor does any of it bear tell-tale factory signatures. Many of the simpler pieces were doubtless made in petty shops, but the excavators have not yet unearthed any shop so equipped as to be able to produce the better articles. The beds, chairs and table-couches certainly required skilled craftsmen of many arts for their production,[22] and the requisite raw materials could not have been assembled without the outlay of considerable capital. The legs of these pieces, generally of wood, required the turning lathe, usually skilled hand-carving, and often the craft of the intarsia worker. The frames, if of wood, were frequently inlaid with figured bronze and silver, chiseled ivory, or at times with tortoise shell or precious

[21] *Notizie degli Scavi*, 1912, pp. 333, 355; 1913, 31.

[22] See Ransom, *Studies in Ancient Furniture.*

stones. The headrest and back were often veneered or inlaid, and the decorated metal braces usually took the forms of finely wrought horses' heads, dolphins, satyrs and the like, figurines that were sometimes molded, sometimes beaten out or carved by hand. Even if some of the metal ornaments could have been ordered from the foundries of Capua, this kind of furniture implies the existence of elaborate factories that employed many craftsmen skilled in all kinds of wood and metal work. The combination of carved marble, fine woods and wrought metals in tables, stands and candelabra also points to factory production. Perhaps the Roman inscription (CIL. vi, 9258) mentioning a gild of Neapolitan citron-wood workers may be taken as a clue to the location of the important industry near Pompeii. That intarsia furniture was imported to Rome in large quantities from some such center we may infer from the existence at Rome of a strong gild of *negotiatores eborarii et citriarii* whose statutes we still have in fragmentary form (CIL. vi, 33885).

In wheat milling and breadmaking, as we have seen, wholesale proportions were reached, though in the nature of the case the trade could not well spread beyond the confines of a city, and "town economy" was a necessary result. Certain it is that very few Pompeian homes had ovens for the baking of bread, though it is possible of course that some of the large ovens of the city were for community use, as is frequently the case in Italian cities to-day. What so quickly centralized this trade in large shops despite the abundance of house servants, we are

not told, but presumably the scarcity of fuel and the failure to invent an adequate method of milling the wheat may explain it. At Rome also as we may infer from inscriptions[23] and from the elaborate frieze on the bakers' tomb still visible at Porta Maggiore wholesale bakers quickly captured the trade of the city. During the Empire however the government there took charge of the business when it decided to distribute loaves of bread to the poor instead of grain.

There must have been some wholesale trade in wine,[24] since the trade-marks upon the amphorae bear witness to the importation of Coan, Cnidian, Sicilian, not to speak of Falernian and Cumaean brands. Perhaps Cornelius Hermeros was a wholesale wine merchant,[25] since his mark occurs upon several brands of imported as well as old domestic wines and other "bottled goods." However, no large wine dealer's storehouse has as yet been discovered in Pompeii, and among the thousand or more marks repetitions of names are relatively so infrequent that it would be quite misleading to assume an organized system of middlemen wine dealers. Judging from the frequency with which estates[26] are named upon the jars

[23] *C. I. L.* VI, *22* and 1002. The large gild mentioned in VI, 1739 was under state control.

[24] *C. I. L.* IV, 5510–6600.

[25] Wholesale dealers are mentioned on 5535 (the *princeps libertinorum* of *C. I. L.* IV, 117) and 5526. One jar (5894) bears the marks of the shipping office: *in nave Cn. Senti Omeri, Ti Claudi Orpei vecta.* Pompeian wine was also shipped to Rome, and the trademark mentioned by Pliny ("Trifolinum," *N. H.* 14, 70) has been discovered (IV, 5518).

[26] For example, in the house of the Vettii, these jars are marked, respectively, *de Arriano, de Asiniano, de Formiano.*

we should attribute the personal names and initials partly to owners of vineyards and partly to responsible *vilici* of wine-producing estates.[27] We may conclude therefore that wine was usually supplied to owners and private cellars directly from vineyards, just as the wine growers of the Alban hills even now send their cartloads to Rome every morning. At Rome the trade naturally assumed larger proportions both because of the demand for great quantities of imported brands and because of the necessity of carrying large stocks on hand. What quantities had to be available at times may be realized when we read that on the occasion of triumphs it was not unusual to distribute several hundred thousand gallons of wine to the populace in one day.

Olive oil, like wine, was generally distributed at Pompeii in moderate quantities by the grower to the petty retailer with little interposition of oil merchants. No store chamber of large capacity has been found in the city and the oil jars lying about the small shops usually bear the names of nearby plantations. There is a hint in Cato[28] that oil production had once tended to fall into the hands of a special class, for he speaks of contractors who would buy the crop on the trees, harvest it, and manufacture the oil. Possibly the Italian farmers were at that time not yet thoroughly familiar with the approved processes of manufacture, or it may be that the product was not then readily marketed, since olive oil was still

[27] Cf. *C. I. L.* IV, 5778 (L. Arellius Successus), and 6499.

[28] Cato, *R. R.* 144. He generally assumes, however, that the owner harvests the crop.

considered something of a luxury. However when, by the invention of the screw-press, a cheap and easily manipulated oil-press could be installed on any plantation, the grower usually pressed and distributed the oil, and the situation which we find at Pompeii doubtless became normal. Rome, of course, presented peculiar conditions. Since wealthy epicures demanded the best products of South Italy, Spain and Africa, there developed whole gilds of *olearii negotiantes*. In the Empire the demagogic princes began to interfere both with the trade and with the production of the vicinity by distributing largesses of oil to the populace, until finally they were compelled to assume complete control of the oil trade in the city. The mountain of broken jars behind the emporium called Monte Testaccio—which the Italian army recently used as a station for anti-aircraft guns during the Great War—is largely composed of casks that brought these government requisitions from Spain and Africa.

Large-scale factory methods are well illustrated in the production by the wealthy duumvir Umbricius Scaurus and his freedmen of the famous fish sauces called *garum*[29] and *liquamen*. The constant discovery at Pompeii of jars bearing the familiar trade-marks of this producer proves the magnitude of the business, and the prominence of his mark shows how nearly his firm secured a monopoly of the trade at home. Here too is one of the few Pompeian products that reached a foreign market. Pliny knew the garum of Pompeii as one of the three best known brands and indeed a jar marked *gar. Pompeian.*

[29] *C. I. L.* IV, 5657 ff.

has been found at Rome.[30] Despite the success of Scaurus, however, there were epicures in his native town who craved the best brand, the garum of the large joint-stock company of publicans in Spain.[31] A jar bearing this trade-mark was found in the house of M. Gavius Rufus.

We are far from well informed about the organization of the clothing trade in the Roman world, and it may be that Pompeii will some day provide the essential facts for solving the problem. The mountains between Pompeii and Amalfi must have furnished pasture[32] for thousands of sheep, and that the city became an important center in the clothing trade is shown by the inordinate number of elaborate fulleries that took possession of old-fashioned houses in several parts of the city. In the Middle Ages when the manufacturing of clothing first emerged from the stage of household production it often happened that the wool grower, or the weaver, or the fuller assumed the rôle of entrepreneur and organized the trade of a country district by purchasing the wool and directing it from spinner to weaver and so on from house to house until

[30] Scaurus, however, seems not to have brought the whole industry under one roof. There are several brands, e.g., *G(ari) F(los) ex officina Scauri; ab Umbricia; ab Umbricio Abascanto; G. F. Scauri ex off. Agathopi.*

[31] Pliny, *N. H.* XXXI, 94; Martial, XIII, 102. This firm was probably the corporation of publicans that bought the fishing concession on the Spanish coast, and then proceeded to pack and distribute the product of their fisheries. There are very few instances of such producing corporations on record.

[32] Seneca (*Nat. Quaest,* VI, 27) mentions the herds of sheep on these mountains.

the finished article was ready for the market. When presently an export trade developed the drapers or cloth merchants further organized the trade and brought the goods together in a community hall, like Blackwell Hall in London, where individual purchasers might choose their goods, and whence the agents of the drapers' gild might go to offer the surplus on the foreign market for the common benefit of all the gild members. Large factories seldom arose until the invention of machinery required the collection of the various craftsmen at some common point where the requisite power could be had.[33]

At Pompeii it is evident from the ubiquitous whorls and weights that spinning and weaving remained in the household; and the list of assignments scratched on a pillar of the house of Terentius Eudoxus[34] shows how the eleven slave maids of one house employed their spare time. Indeed so long as the very simple processes of spinning and weaving could conveniently utilize the unoccupied energies of such housefolk, which would otherwise go to waste, it is clear that there would be neither a demand for high-power machinery nor the possibility of large-scale production in factories. This explains why gilds of spinners and weavers did not arise in ancient Italy.

With the subsequent processes of cloth-making however it was different. Homespun direct from the household loom was now no longer used even by people of moderate means. It had to be sent to the fuller who put

[33] See Ashley, *The Economic Organization of England*, p. 90.
[34] Insula VI, 13, 6; cf. *C. I. L.* IV, 1507.

it through an elaborate treatment of cleansing and bleaching,[35] of stamping, carding, and shearing. Then the dyer, whose work might or might not be done in the fullery, finished the cloth into a delicate product of which the figures in Pompeian wall paintings give a faded impression. At Pompeii the fullery with its expensive system of vats, its complex trade-processes, and its group of skilled workmen may fairly be called a factory; but it is at once characteristic of the ancient conservative methods that no fullery outgrew the relatively narrow confines of the ordinary dwelling-house.

And yet at Pompeii the fullers seem to have taken an unusual step toward the organization of the whole trade. In the early Empire, Eumachia, a generous priestess, built an extensive hall near the forum for the use of the fullers.[36] This building is certainly not a fullery, and it can hardly be anything but a hall for sales-booths, like Blackwell Hall in London. In other words it is very likely that, as often happened in England, the fullers, who were the last to handle the cloth in the process of manufacture, bought the stuffs outright, finished them, and became the distributors as well. So far we may safely go, but we do not yet know whether the fullers ever attempted to organize the whole trade by purchasing the raw wool and contracting for the spinning and weaving of it. Nor do we know whether, like the drapers' gilds of England, they ever attempted to market their goods abroad through corporate agents.

[35] Pliny, *N. H.* XXXV, 198.
[36] Mau-Kelsey, p. 110.

In this trade again Pompeii seems to represent the normal practice in the Roman world. Roman authors generally assume that maid-servants of the households occupied their spare moments with spinning and weaving;[37] there is no evidence of clothing factories in Italy;[38] we have no mention of gilds of weavers or spinners in our inscriptions, while the fullers' gilds were among the most important ones. Indeed several cities besides Pompeii possessed special buildings for them,[39] while Rome granted them certain exemptions from the public waterrents.[40] To be sure we may not assume that the well-to-do at Rome and other large cities continued to wear "homespun" to any considerable extent. But much good cloth could doubtless be selected by the fullers from the

[37] Friedländer, *Sittengeschichte,* I, 462; Varro, *Men. Sat.* 190; Colum. 12, praef. 5–9. Cato's farm was equipped for weaving but Cato preferred to buy the clothing from the city (*R. R.* 10, 5; 14, 135); perhaps this particular farm had no sheep. Gummerus, *Klio, Beiheft* V, has generalized too boldly from this instance. Atticus, who owned large sheep ranges in Epirus (Varro, *R. R.* II, 10, 11), apparently had the wool woven on his estate, Cic. *Ad. Att.* XI, 2, 4. In Sicily Verres found that good stuffs were produced in many wealthy households, he accordingly requested them to produce tapestries for him, Cic. *Verr.* IV, 58.

[38] An exception may be found in the wholesale remaking of cast-off clothing by *centonarii.* Perhaps several of the workmen mentioned in Roman inscriptions (*C. I. L.* VI, 7861, 3, 4, etc.) labored in such a factory since they are all freedmen of a certain Octavius. A few weavers' gilds were found in the East and in Gaul, Waltzing, *Corpor.* II, 153; IV, 95.

[39] *C. I. L.* X, 5682; XIII, 3202; IX, 2226.

[40] *C. I. L.* VI, 266; 10298. The fullers were of course also the laundrymen of ancient times.

products of household looms and when skilfully fulled, carded, and dyed, be marketed as wholly satisfactory cloth. For the fastidious there were always the imported[41] stuffs from the Egyptian state factories, the hand worked fabrics of Anatolia, the choice purples of Syria, and the "Coan Silks" of the Greek islands. For the manufacture of garments there was no need of an extensive industry, since most garments were simple pieces of cloth that came from the loom in almost the form in which they were to be worn.

The shoe trade at Pompeii as everywhere was in the hands of individual shoemakers who were generally considered men of very humble station. There was apparently a gild of them in the town and several of their shops may be identified. The shop of Insula IV, 3, is typical, where the cobbler eked out his small profits by serving as portier for his former officer in the army. At Rome the *sutores* seem to have drifted down to the "shoemakers' ally" in the Subura in great numbers, and their row of shops may be restored in imagination by any one who has tried to buy a pair of shoes from the street racks in the cobblers' quarters of Athens or Constantinople. A gild[42] of those who specialized in women's footwear at Rome claimed some three hundred members, a sufficient proof of the minute distribution of the trade.

By contrast the tanner who supplied the leather to the

[41] See Chapot, *Textrinum,* in Daremb.-Saglio.

[42] The Collegium fabrum soliarium baxiarium centuriarum III (*C. I. L.* VI, 9404). Wholesale trade in leather is attested by the third century inscription, VI, 1117.

shoemaker was a far more important personage. Tanning could not profitably be done on a small scale since the space and the apparatus needed for the curing of a few hides could quite as well serve for curing large amounts, and some ready capital was needed to tide over the time required in the curing. It may well be that the large tannery[43] found in Regio 1, 5, of Pompeii was able to provide all the leather needed by the shoe and harness-makers of the town. Here is an instance where economic considerations inherent in the nature of the industry quickly made for large-scale production.

As for agriculture, we have long known from the famous treatises of Cato and Varro that farming had to a wide extent become a capitalistic enterprise by the middle of the second century B.C. We are now able to restore the picture of a typical plantation from the remains of a farmstead at Boscoreale,[44] two miles beyond Pompeii. That the owner was a practical farmer is clearly apparent from the abundance of farm implements, wine vats, and the like. That, however, he was a man of urban breeding and social connections, with wealth enough to gratify very fastidious tastes, is proved by the fact that his silver plate is now reckoned one of the special treasures of the Louvre.[45]

Whatever other plantation owners may have done, this

[43] Mau-Kelsey, p. 395.

[44] *Monumenti Antichi* VII. For other villas near Pompeii see Barnabei, *La Villa di P. Fannio Sinistore*, 1901, and *Notizie*, 1898, p. 495; 1899, pp. 15, 297, 392; 1910, p. 139.

[45] *Mons. Piot*, V.

landlord, from the point of view both of production and of consumption, was a part and parcel of the world's commerce and industry. So-called domestic economy has no place in his system of householding. He produced a few specialties for the market with a view to profit, caring little whether or not he succeeded in satisfying the needs of his household from his own estate. The main part of his farm was devoted to vine culture, as two strong presses and a storeroom of jars with a capacity of nearly twelve thousand gallons testify. That there was also provision for some olive growing is shown by a mill, a press, and jars of a few hundred gallons' capacity. Little provision was made for stock raising and there was apparently small need for hay. A survey of the implement room is instructive. The abundance of hoes and picks and pruning hooks as well as the absence of scythes and hammers and shears indicate the narrow limits within which the work of the farm was confined. A small mill and oven show that there was grain enough for home use, but nothing has been found to bear out the orthodox assumption that a house of this sort should have a staff of slave women spinning and weaving. Since the soil near Vesuvius was too rich to be given over to pasture the farm probably produced no wool, and the clothes were probably bought. Moreover, the supposition that large plantations were independent of the market in the matter of labor and implements seems to break down here. It is hardly necessary to mention that the house was built by skilled masons, as the fashionable type of reticulate masonry indicates, frescoed by an expert painter

from the city, decorated with terracotta ornaments, and fitted up with standard bathtubs and an elaborate hot-water system that must have required the services of Pompeii's highest priced plumbers. These things are in harmony with the silverware, the artistic bronzes, and the modish furniture. But even the implements of the stock-room are of the standard forms made by skilled artisans, the pottery bears the factory stamp, and the bricks bear trade-marks known from Pompeii. In fact the landlord had proceeded far beyond the earlier practices of agriculture according to which the householder adapts his system of livelihood to the production of his farm. This man's connections with his land were quite incidental. To him the land was a factory for the production of a special article from the profits of which he could make a living. And he lived upon his farm, when he did, only because he chose to be near his business or because he liked the air, not because it gave him his bread and cheese and homespun.

Such was the economic structure of the city, and this determined the social system. In the first place agriculture must have been the most respectable occupation at Pompeii as at Rome, and there can be little doubt that it was a portion of the land—the vineyard of the Vesuvian slopes and the rich vegetable gardens below—rather than the shops of Pompeii which Sulla distributed among the veterans in 80 B.C. During the early years when the city government was controlled by the colonists these must have held all the higher offices; to that class must have belonged the Holconii, the Quinctii, and the numerous

other magistrates whose liberality evoked inscriptional records. Yet, as we have seen, the profits of industry were frankly acknowledged, as witness the *Salve lucrum* of Vedius Siricus, the ubiquitous trade-mark of the fish packer, the tile stamps of Saginius and Eumachius, and the mills of Proculus, for all these men were elected to the magistracies. If Caecilius Jucundus, the banker-auctioneer, who lived as luxuriously as any of these, failed to reach the duumvirate, lack of respectability could hardly have been the reason. He probably fell under the provisions of the *lex Julia municipalis* which disqualified the praeco[46] for municipal office, apparently in order to keep the "contractor out of politics."

Of course much of the profitable business must have been carried on by trusted freedmen, as Cicero's letters prove that it was at Rome, but at Pompeii where many of the natives were Greeks and still bore Greek cognomina it is not an easy matter to recognize liberti by means of the nomenclature. At any rate on the streets of tombs the most elaborate monuments are as likely as not to boast the honors of a sevirate, thus betraying the rank of a freedman.

Slaves of course shared in the industrial life of the city and not only manual but also administrative work was intrusted to them. Very often the signacula, the seals and stamps used to brand goods and legalize documents, bear the name of a responsible slave as well as that

[46] The business accounts of Jucundus (*C. I. L.* IV, Supp. I.) show that he not only took municipal contracts but also acted as agent in placing such contracts and in farming public revenues.

of his master. The loaves of bread now in the Naples Museum for instance are marked *Celeris Q Grani Veri ser* (*CIL.* X, 8058, 18).

If we may judge from election notices, however, Pompeii seems to have had a comparatively large free population. The gild members who explicitly support candidates are not only the prosperous fullers, the millers, and the bakers; they are owners of small shops like the aurifex and the veterarius, the petty merchants of stalls and booths like the pomari and the unguentari, and there are also the workmen's groups of dyers (offectores and infectores), the porters (saccari), the harvest hands (vindemitores), and the woodworkers (lignari). To be sure such election posters do not permit the inference that every supporter is a citizen, but there would be little point to these announcements if the labor gilds consisted largely of slaves.[47] That there was a large free population of poor workmen may also be inferred from the inordinately great number of petty barrooms and lunch counters. The scores of these places in existence could only have been supported by poor but free folk who were

[47] Della Corte, *Case ed abitanti a Pompeii, Neapolis,* II. 152. The usual inference that the gilds were "in politics" is by no means justified. The "election notices" were posted as advertisements by the candidates. In every case where it was possible the candidate tried to make the advertisements effective by announcing the support of those who occupied the house or shop on which the advertisement was painted. Such a notice however does not necessarily imply a greater enthusiasm for the subject of the advertisement than does a modern placard at the grocer's lauding the merits of some breakfast-food.

[48] *C. I. L.* VI, 6213–6440.

in a position to spend a few sous daily for tidbits. Some of these laborers were independent craftsmen who managed their own small business in front of their two- or three-room houses. Such places are very numerous at Pompeii. Others were clients of the well-to-do, like the soldier-cobbler at IV, 3, who while making shoes served as concierge of his former centurion. A very large number were ex-slaves whom after manumission their former master set up in some shop, usually on a percentage basis. Such freedmen probably occupied the shops and booths connected with several of the larger houses in the block surveyed above.

We have now reviewed the methods of Roman industry and attempted to observe their application in one city. It is obviously the part of wisdom not to compete with economists who have attempted to describe this intricate situation in one all-inclusive formula. However, bearing in mind that everchanging forces were constantly producing new conditions and that the data are nowhere adequate to justify final conclusions we may be permitted to attempt a classification of the factors that now encouraged now circumscribed the growth of Roman industries.

The simple economy of the primitive household may have existed in the mountains of Italy in Cicero's day, but few traces of it can be found. The Roman farmstead was often meant to be "selfsufficient," to provide for all its needs and to possess slaves who could perform the technical as well as the ordinary work. When, however, this was the case, the selfsufficiency was not a mark

of primitive conditions—as in our own frontier life—but rather of an elaborate capitalistic economy in which the fastidious landlord could afford to satisfy his every whim.

In the cities we find an industrial system which in many respects resembles that of early nineteenth-century New England where the native artisans of inland towns not yet connected by steam power produced most of the articles needed by each town. However, many of the Roman cities were now growing large and the number of wealthy men who demanded and could pay for luxuries and delicacies far exceeded that of our early Republic. To gratify these an extensive commerce had long existed, and in some lines of production industries aiming at a wide market had already arisen.

The forces that worked in favor of large-scale and monopolistic production differed but little from those of a similar tendency to-day. The possession of a new device of glass-blowing seems to explain the success of the Sidonian glass-makers, who apparently erected a factory on the Latin coast; the accumulation of skilled workmen and artistic designers at places providing a desirable clay enabled the Arretine potters to capture the trade of half the world; and similarly the possession of good recipes gained a wide market for certain food specialities like fish delicacies and prepared brands of wine. The production of silver and bronze-ware tended to concentrate, partly because a combination of many highly trained molders, designers and engravers was required, partly because the expensive raw product demanded capital. The same is true of many kinds of furniture that re-

quired skill in working expensive woods, metals, and marble. The extension of the fulleries and tanneries illustrates how mass production was encouraged when chemical preparations and apparatus not easily procured by the public were required. In wholesale breadmaking the centripetal forces were the desire to save labor and space, the increasing cost of fuel, and the difficulty of procuring flour in the home. To some extent certain towns specialized in iron-ware. Here doubtless the problem of fuel reckoned in the account, and it may also be assumed that the irregularity of the demand for arms and armor, and the seasonal suspense of the trade in farm implements discouraged the individuals who had not the capital to wait for the market; ordinary cutlery which found a steadier sale was doubtless produced to a considerable extent in small shops. Finally the behavior of the brick monopoly at Rome illustrates the chance aid that an industry might receive from such an accident as the great fire which threw enormous contracts in the way of a few men who had the facilities for production ready when needed.

A genuine factory system did not, of course, fully develop in all of these lines, but division of labor and the employment of some labor-saving machinery and technical processes were present in the production of silver and bronzeware, pottery, glassware, furniture, bricks, and some table delicacies; while in most of these instances there is evident a capitalistic production having a world wide trade in view.

Certain centrifugal forces on the other hand were still

very strong. With the slow transportation of that day perishable goods could hardly pass from town to town. With the concomitant cost of transportation heavy articles of low value like cheap earthen-ware could not advantageously be shipped. Lack of patent laws must also have retarded concentration since new processes quickly became the property of any rival. The heaviest drag upon industry, however, must have been the alldominating slave system. The abundance of slaves enabled fastidious householders to have everything possible done in their own houses in accordance with their personal tastes. Among the slaves of Statilius Taurus, the magnificent friend of the Emperor, we find trained slaves engaged not only in performing extravagant personal services but in making articles that the industries of Rome might well have supplied: smiths, fullers, tailors, spinners, weavers, shoemakers, masons, cabinetmakers, carpenters, workers in marble, and others. This was hardly a condition calculated to help the marketing of factory-made goods. Moreover a plentiful supply of cheap labor discouraged a demand for new labor-saving devices which might have created new products for a potential market, and might also have tended to the accumulation of expensive tools and trade-secrets to the benefit of industrial concentration. For instance the invention of a valve in the bellows used in iron furnaces to create a continuous blast, an improvement that any intelligent and interested workman might have conceived, would have revolutionized the iron industry by making smelting and casting possible on a large scale. But the

slaves who performed the work were not expected to bring quick interest to their tasks. Finally, the general disrespect for industry, due partly of course to a conservative devotion to land found in all aristocratic societies but indelibly fixed by the association of industry with slavery, turned aside the capital and the intelligence of strong Romans which might otherwise have flowed into industrial development. It now seems a fair conclusion that Roman industry had reached as high a degree of advancement in Cicero's day as it was likely to do so long as slavery persisted.

CHAPTER XIII

Capital

From the point of view of the modern world the capitalist had a thorny path to tread during the late Republic. The semi-aristocracy of wealth, flattered when needed in the civil service, or in the formation of a political *bloc*, was generally at warfare with the Senatorial nobility after the Gracchan turmoil. Gaius Gracchus, to be sure, strengthened the hands of the knights and united them with the popular party for an onslaught upon the Senate. In turn the Senate made peace with them in 64 in its eagerness to protect vested interests against Catiline's rebellion. For a season between 70 and 66 they seemed to be the dominant power, forming the backbone of the coalition that broke the Sullan constitution in 70 and directed an aggressive foreign policy in 67–6. But this temporary success is not to be attributed to equestrian popularity or leadership. Indeed, Roman history does not point to a single effective leader trained in business. The Sullan constitution, out of date when adopted, was doomed to failure in any case. It gave way at the first attack, when Pompey accepted the position of figure-head in a revolt that most of Rome desired. Crassus manipulated the political moves, Cicero coined the necessary phrases, and the knights provided the funds. Three years later the knights had their reward when the same elements combined in a demand that Pompey clear the

seas of pirates, so shamefully permitted by the Senate to prey on commerce, and the year after commissioned him to destroy Mithradates and organize the East into a series of provinces which would be open to commercial "development."

To this extent the capitalistic interests played the political game with some success and profit. Nevertheless Romans were never allowed to forget that political considerations were and must be paramount and that wealth must be subject to political needs. Sulla in 82 proscribed 2,600 knights and confiscated their property in order to fill the treasury. When furthermore he laid an indemnity of twenty million dollars upon Asiatic cities for acknowledging Mithradates and the cities had turned to Roman capitalists for a large part of the amount, Lucullus, acting for the senate, presently permitted them to repudiate most of the interest charge, thus throwing the burden of Sulla's theft largely upon the shoulders of the knights. In 43 again the triumvirs after raising an army of forty legions by extravagant promises of bounties threw the principal burden of payment on those who had wealth. Two thousand knights were proscribed under pretext of disloyalty and their property taken for the account of the treasury.[1] It is not surprising that Roman business men usually preferred to avoid politics, and that they made their investments if possible in far-distant real

[1] Many Roman landowners who were not themselves accused of disloyalty lost properties that they happened to possess within the confines of municipalities which were punished by wholesale expropriation.

estate or in noiseless private banking. The feeling grew strong in those days of civil war that while money might be power it should not measure itself with political power, and that vested interests, so strongly supported by the old aristocratic code had few rights that were sacred in the eyes of the government if held by a class not in sympathy with the government. This condition continued into the Empire. Whereas capitalists continued to gather vast sums from all the empire into their private coffers at Rome, they remained at the mercy of imperial tyrants who when driven to bankruptcy preyed upon them and confiscated their treasure under whatever pretext, as the easiest method of balancing their ledgers.[2]

The surplus capital of the Romans, as we have noticed, had for centuries followed the expanding armies inland. Time and again when the population of the city became dense and there were signs of a drift toward the sea or toward commercial outlets, a new advance on the border had required military colonization, and the familiar call of the land that Romans were accustomed to heed turned men inland once more. It is a situation that reminds one strongly of the opening of the American frontiers, which permitted our once flourishing merchant marine to decay and temporarily stemmed the current of New England industries. When in the second century however Rome's armies went beyond Italy, annexing Spain, Greece, Africa, Southern Gaul and parts of Asia, the settler did

[2] See Pliny's famous statement (*N. H.* VI, 35) that Nero, finding half of the province of Africa in the hands of six planters, confiscated their lands.

not follow with the same alacrity. The land among strangers did not seem to offer a congenial home to the average Roman, and even Gracchus found little support for foreign colonies.

In Italy however, Roman wealth must have expanded rapidly as measured by the census rolls. Beloch[3] estimates that the land in Italy thrown under Roman cultivation by the expropriations of the Punic war and by the seizures in the Po valley doubled the former acreage, making the total of ager Romanus about fourteen million acres, which at the very modest price of fifty dollars[4] per jugerum usually given for unimproved land totals a billion dollars in soil value alone. This would give a high per capita property rating for the 320,000 citizens of Gracchus' day. When we remember that large landholding was already the rule we may be sure that there were many thousand Romans who were well-to-do.[5]

Ready capital may however have been scarce. The typical farmer seldom went to the bank; the turnover of money is exceedingly slow in agriculture; the strong box in the *tablinum* could take care of the surplus until the

[3] Beloch, *Bevölkerung*, 388.

[4] Columella, III, 3, 3, places this value on ordinary unimproved Italian farm land. The figure is rather too low than too high for Cicero's day when Varro's account shows a very active interest in farm lands.

[5] Before the Second Punic War there were nearly 20,000 citizens possessing a knight's census. We are not told that this was then placed at 400,000 sesterces, but it may have been, since Polybius (VI, 20) implies that the knights' census was higher than that of the "first class." See Marquardt, *Staatsverw.*, II, 331.

owner found another neighboring patch in which to invest. Later this process extended into the provinces. Always did the surplus of the average Roman lie easiest that found its resting place quickly in some real estate. Cicero's properties were mainly in farm and city holdings, Atticus had large estates in Epirus and Italy, Varro in Campania and Apulia, Caesar's prefects, men like Labienus[6] and Mamurra, who were enriched by booty, at once invested in land. Cicero's civil suits usually had to do with titles to land in Gaul or Etruria or Lucania, and his letters of recommendation are full of references to large estates in Greece, Sicily, and Asia.[7]

In the last century of the Republic, however, not a little capital found new outlets, especially in the management of state contracts, in money lending and banking, and in trade. The activities and importance of the state contracts are apt to be overestimated because, having a general interest, and being the concern of every citizen, they form the topic of the political harangues and letters of the day. Indeed our newspapers give more space to one million dollars invested in municipal contracts than to many hundreds of millions invested in other enterprises. As a matter of fact the actual capital engaged in public contracts probably did not reach one per cent. of

[6] The Caesarian partizan attacked by Catullus in Carm. 94, 105, 114 and 115 is Labienus; see *Am. Jour. Phil.* 1919, 396.

[7] Cf. Cicero, *Pro Flacco,* 70; *Pro Caelio,* 73; *Ad Fam.* XIII, 69; 72; 38, 11; VIII, 9, 4; *Pro Quinctio, Pro Tullio, Pro Fonteio, De Lege Agraria,* passim. Cicero, *De Off.* I, 151, naïvely suggests that the merchant may deodorize his profits by investing them in a plantation.

the amount invested in real estate in the city of Rome. Of the ten millions of state income that we have estimated for Cicero's day two-thirds at least did not pass through the hands of the publicans. Asia was the only province that had been wholly abandoned to them, and in other provinces like Sicily, Spain, Africa, and Gaul, they collected only the less lucrative revenues. The construction of public works like aqueducts, roads, and harbors brought profit at times, but such works were subject to precise estimates of cost and close supervision; the work was almost invariably well done and without the odor of dishonest spoils. Whoever will take the time to examine the pavement of an ordinary Roman highway, or the remnants of the docks of an old Roman harbor, or the imposing arches of Republican aqueducts still standing on the Campagna will conclude that even political contracts have at times been honestly filled. The collection of port-dues could usually be checked by ship invoices since the cargoes at most ports passed at a low and uniform rate. Pasture dues also depended upon a simple count of cattle and must have caused little confusion of accounts. In the estimate of tithes,[8] however, many companies were caught in vicious thievery. The calculation was difficult, the provincial could not take his appeal to Rome without great cost, at Rome he seldom found a patron who cared to waste time on an unsympathetic jury

[8] The companies were generally rather small, specializing in one form of taxation as *portoria,* or *scriptura* or *salinae,* etc. The Bithynian company seems at one time to have consisted of an inner group composed of members of several companies, Cic. *Ad. Fam.* XIII, 9.

in his behalf, many of the jurymen were apt to hold shares in the company of contractors, and the provincial governors, though often hostile to the financial group, usually preferred, sometimes with their eye on political preferment, not to incur the enmity of a company. Many cities were robbed, some resorted to bribing the collectors or the governors for self-protection. Very often in lieu of efficient management of their own finances they borrowed money at unreasonable rates from the official collectors with which to pay the taxes due. Thus the evils of the vicious system raised a stench to heaven before Caesar put an end to it. The system certainly worked as much wrong in that far off province of Asia as it did for instance in France before the Revolution, where we are told that the cost of collecting often amounted to as much as the sum which reached the exchequer.

The wounds of Asia must not however all be laid to the bludgeons of the companies. The aristocratic party should have credit for a generous half of them. When Sulla exacted his enormous indemnity of twenty million dollars he laid upon the Asiatic cities a burden of debt which kept them in arrears for a generation, and it was the interest upon such debts that pressed them even more than the annual tithes. Nor did senatorial supervision always use reason in dealing with the companies. It was an old theory even in the days of Polybius[9] that the companies should be encouraged to bid within a narrow margin of receipts on the understanding that the Senate would remit a reasonable portion in case of unforseen

[9] Polybius, VI, 17.

disaster. Such contingencies frequently arose in the East where Parthian raiders might drive off herds, burn the fields, and put a temporary end to trade. But in the political squabbles of Cicero's days it happened more than once that a clique in the Senate would effectively block any attempt at remission and the companies had to bear the complete loss. By that time the buying of shares in the public companies had come to be looked upon as a gamble which conservative men avoided[10] and the business therefore fell to men of lower standards. The companies in consequence exerted themselves to cover their occasional losses due to war, bad crops, and senatorial obstinacy, by extortion and deceit. Such was the experience that led Caesar to place Asia in the same position as the other provinces, and during the Empire the companies are found in charge only of the contracts in which supervision was readily exercised and extortion quickly detected. Henceforth little capital was required in the concerns, shares were less extensively held, and public interest seldom became such as to bring the companies to the notice of Roman writers.

Following the flag and the official tax gatherer went the *negotiator*,[11] the "busyman." The history of the word illustrates the history of business activities. At first, the word applies to men who went abroad to lend money where rates were high, to place mortgages, to buy land at bargain prices, and incidentally to do some trading if good profits offered. This indicates that the Roman had

[10] See Cic. *Ad. Fam.* XIII, 10, 2.

[11] See Cagnat, *art. Negotiator,* in Darem.-Saglio.

little control of the machinery of commerce; also that specialization in business had not yet progressed far. It was only in the Empire when various enterprises were better segregated, when banking in the province became less profitable because of a more stable régime, and when the Roman had a better command of shipping, that the word came to apply wholly to traders. It is with the *negotiator* of the Republic that we are here concerned. A typical example may be found in Cicero's client, Rabirius Postumus,[12] who in many respects reminds us of the American business adventurers that operate in Central American bonds, mines, and revolutions. Inheriting a fortune made in tax-farming, he continued to some extent to engage in the same business. But he also extended his activities into regular contract work on a large scale, into lending money at high risks in the provinces, and even into shipping and trading. In 57 the King of Egypt, driven into exile by a revolution, came to Rome to appeal for aid, and when it was bruited about that Cæsar and Pompey were inclined to support him Rabirius formed a partnership to equip the King with the needed millions, the King pledging his revenues against the debt. When the Senate obstructed a motion to give the King official recognition and support, the governor of Syria, a friend of Pompey's, received an intimation from adherents of Pompey that he might profit by escorting the

[12] Fowler, *Social Life of Rome*, p. 91; Giraud, *Études Economiques*, p. 204; Tyrrell and Purser, *The Correspondence of Cicero*, II, p. xxx. Dessau (Hermes, 1911, p. 613) seems to be in error when he identifies Curtius Postumus with Rabirius Postumus.

King home even without a decree of the Senate. So the King was restored, and Rabirius went with him to see that the mortgaged revenues were used toward paying his debts. At Alexandria, to the astonishment of Roman travellers, Rabirius took his office in Greek garb at the custom house and managed the state monopolies in cottons, cosmetics, bricks, beer, and all the rest. Puteoli was not a little amazed to find one day a whole fleet of Rabirius' come into harbor laden with precious Egyptian ware, paper, linen, and glass. The Senate in a rage at the success of the King despite its explicit veto took vengeance on the Syrian governor, who was tried and banished for his part in the affair. Rabirius was finally imprisoned by the King and escaped alive with difficulty. His lawyer claimed that he was a bankrupt. The Senate suspected, however, that the farcical denouement was invented by Rabirius and the King to deceive the Senate and the angry Egyptians, a not unplausible hypothesis. The adventurer was apparently exiled from Rome, but Caesar found a place for him in his commissary department during the Civil War, where like most of Caesar's business agents he was doubtless given an opportunity to fill his purse. Such were in general the negotiators of the late Republic.

To make an estimate of the capital available for large business undertakings would not be possible, but it is fair to say that over-estimates are frequently encountered. In the first place we do not know of any very large fortunes actually made in commerce, banking, or manufacturing at Rome. The large fortunes[13] mentioned—in two

[13] Marquardt, *Staatsverw.* II, 56.

instances we hear of twenty million dollars—were acquired by other methods and were possessed by the ruling aristocracy or by freedmen who acquired their wealth by misuse of imperial influence. Lentulus, credited with the largest sum, was a senator who gained much of his wealth in opportunities afforded him by Augustus, presumably in the purchase of confiscated estates and in military service. Pompey, worth several millions, had profited from very fortunate campaigns in the East, for generals then, as naval commanders till recent times, secured a portion of the booty taken in war. Pompey's business manager, the freedman Demetrius, is said to have gained very heavily from his business connections with the general, and to have left a fortune of four million dollars. Crassus, reputed the richest man of the Republic, left seven million dollars acquired largely from secret dealings in the real estate of those proscribed by Sulla. The three richest men mentioned in the first century of our era were three rascally freedmen of Claudius who traded on the influence and power that they acquired over Claudius, and over the Empire through him. Pliny[14] indeed mentions an Isidorus, a freedman in the time of Augustus, who left large estates and herds besides a ready fortune of three million dollars. Perhaps this was acquired in trade, but we are not informed.

Corporation law did not in Republican times develop to the point where vast sums could be combined in ordinary enterprises of industry and commerce. Only in the formation of companies to farm public revenues and to

[14] Pliny, *N. H.* XXXIII, 135.

operate public property like mines and salt works did the state permit and encourage full fledged joint-stock companies, associations that could accumulate considerable sums not only through the participation of members who held *partes* but also of stock holders who bought shares (*particulae*). Yet such companies could not have been very large, since separate firms seem generally to have been organized at each census for the management of each subdivision (ports, pastures, tithes, etc.) of each province. Seldom did any annual operation of this kind require a capital of a million dollars. For the management of business enterprises, partnerships[15] were often formed but they had slight protection in law and had to rely mainly upon the mutual good faith of the partners. They were of course dissolved by death or by the word of any member, and they were not protected by privileges of limited liability. One has but to read the brief paragraphs in Gaius, *De Societate* (III, 148–154) to realize how little Roman business relied upon partnerships and how incapable these were of undertaking enterprises like manufacturing or extensive banking which must depend upon a durable and legally protected corporation. As a matter of fact most of Rome's larger business enterprises seem to have been carried on by individuals who placed in the business only their own capital and what they might borrow on their personal credit.

[15] Illustrations of such partnerships are found in Cic. *Pro Fonteio, Pro Rosc. Com.; Pro Rab. Post.* For the law on corporations and partnerships see Gaius, III, 148–154, and *Digest,* especially 17, 2; 47, 22, 14, 1–4, and 3, 4.

The machinery of banking[16] also developed more slowly in the Republic than the growth of the state would seem to require. The needs in the provincial field were largely met by the taxing societies which seem to have transported money and credits and by the Greek and South Italian bankers already in the eastern field. The vicious attacks upon property made in the civil wars of Sulla, Marius, Catiline and Caesar, taught Romans the need of keeping their accounts in the hands of trusted freedmen rather than in bank ledgers accessible to the agents of proscribing governments. Finally the lack of interest in business always betrayed by the landed aristocracy must be taken into account in explaining why the Roman government failed to follow the example of several Greek states and of the Ptolemies in chartering state-banks or at least in encouraging banking by instituting state supervision. There were however several important bankers doing business at Rome in Cicero's day though they seem to have been foreigners and Campanians. Men like Oppius, Egnatius the Spaniard, Cluvius and Vestorius, both of Puteoli, must have had large offices and were widely trusted. They received deposits on current accounts on which they paid interest, they lent money on notes, mortgages and on current accounts, and did some

[16] Byrne, *Titus Pomponius Atticus;* Früchtl, *Die Geldgeschäft bei Cicero,* 1912; Blümner, *Röm. Privat-altertümer,* 649. At Pompeii were found more than a hundred receipts of a small private banker, Caecilius Jucundus, who seems to have specialized in collecting moneys, auctioning slaves and chattels at a percentage of one or two per cent., and in farming the city's lands and town properties, *C. I. L.* IV, 1.

discounting. They bought and sold real estate on their own account and as agents for others; they did considerable business in money changing since numerous foreign issues of gold and silver came to Rome through foreign trade; they often kept expert business agents at the disposal of customers, especially men versed in provincial investments who travelled extensively abroad. Cicero for instance gave the agents of Oppius and Cluvius letters of introduction to provincial governors, to use in their eastern affairs. There was of course little of what we call syndicate banking since industries had not as yet developed to the point of requiring it, but in the placing of large loans to foreign cities the bankers sometimes acted as agents for wealthy nobles, and sometimes formed temporary partnerships. Finally some of them had branches or correspondents in the provinces so that bills of exchange could usually be procured for most of the important centers of trade. It must be said however that the business of foreign exchange was far from systematized. Cicero for instance, when he wished to establish a credit for his son in Athens made over to Atticus his urban rentals at Rome, in return for which Atticus gave his banker in Athens orders to credit Cicero junior with the amount and to debit the account of his income from the Epirote estate.[17]

For gauging the growth of Rome's foreign business we have some data in the body of inscriptions found at Delos.[18] In 169 after subduing Macedonia Rome gave

[17] Cic. *Ad Att.* XII, 32, and XIII, 37.

[18] Hatzfeld, *Les Italiens Résidant à Délos,* Bull. Corr. Hell. 1912; Frank; *Roman Imperialism,* 284; Roussel, *Délos, Colonie*

the island of Delos to Athens, requiring only that the place be left a free port to all comers. Since no port-dues were exacted, the shipping of the East soon found it a convenient meeting place for trade. From the cities of the Black sea, from Syria, Egypt, and Italy, traders came to exchange their wares. Rome found it a useful rendezvous when in the middle of the century she had to deal with revolts in Macedonia and Greece; and when Corinth was then destroyed, the harbor of Delos was in a position to take its place as the chief port of Greece for western shippers. Twenty years later Asia became a Roman province, and then Delos naturally came to serve as a way-station for Roman publicans who farmed the provincial tithes and managed the royal estates. Its market place was chosen as a convenient one in which to dispose of the products exacted in the province, and before the end of the second century as our inscriptions prove, Italians had come to be the controlling element of the town. To be sure when we examine the names of these hundreds of Italians it is seen that they largely

Athénienne, 72 ff., who gives an excellent map of the city. The traditional view, still repeated by Roussel, 7 and 433, that Rome established a free port at Delos to favor Roman commerce assumes an interest that did not yet exist. Why did Rome then give the island to Athens with the control of the sacred property in shops and houses so necessary to commerce? Why did she not assume control of the harbor securing port exemptions to Roman traders? Obviously the declaration against port dues extended to all commerce and all visitors at the shrine, the natural privileges of a sacred port which had regularly been manifest in the asylum enjoyed even by hostile vessels in the harbor, see Livy, XLIV, 29.

emanate not from Rome, but from the south, i. e., from Campania, only half-Romanized at the time, and from the federated Greek cities of Magna Grecia, which in all Roman treaties were given the same protection accorded to Romans. In fact the "Roman" associations (*conventus*) in foreign cities consisted at this time indiscriminately of all peoples from any part of Italy. The two groups of "Romans" at Delos that we can best identify, the bankers and the oil merchants, consist of south-Italians. The bankers are respectively a Greek from Syracuse, one from Tarentum, a Syrian who acquired citizenship in Naples, an Apulian, and a certain Aufidius Bassus who may or may not be a real Roman. The oil merchants, all from the south, are apparently men who sell the oil of south Italy on the eastern market.

Can it be that Rome after all had not yet entered either the commercial or the capitalistic field that her armies had opened, and that only those peoples who were already upon the high seas profited from the pax Romana and the "freedom of the seas" that followed the extension of Roman rule? It is clear that south-Italian merchants and the bankers associated with them were the first to profit by the extension of Roman rule eastward. The Greeks from Tarentum to Cumae had always loved the sea and engaged in trade and in ship-building. Indeed Rome had always relied upon these people to supply her vessels and seamen for the navy. Their merchant marine had therefore received all the encouragement that came from the upkeep of shipyards and the training of seamen. Furthermore these Greeks who knew the language and

customs of the Oriental peoples as well as of the Romans naturally became the middlemen between the East and the West.

Nevertheless it is difficult to believe that these Italiote Greeks could successfully have captured so much of the Delian trade from the practiced Syrians, Egyptians, and Islanders if they had dealt wholly with their own capital and on their own account. It is very probable that Romans of Campania were supplying some of the capital of the shippers who put out at Puteoli. The rather startling statement of Plutarch[19] that the elder Cato lent money in marine insurance partnerships may be explained in this way. Cato possessed lands in Campania where he came into contact with the numerous industries that centered about the harbor town of Puteoli. Cicero[20] in his Verrine speeches and his letters reveals the fact that the Romans who engaged in business in Sicily and the eastern trade with Sicily were largely men like Vestorius, Granius, Cluvius, and Sittius, whose base of operation was Puteoli.

The true interpretation of the Delian inscriptions relating to Roman business seems therefore to be something like this. When Rome established her rule in Macedonia and later in Asia the trading and banking between Rome and the East was at first done through south-Italian business men already in the field, supported by some venturesome Roman capital. Then when the contracts for the Asiatic tithes were let at Rome, the contracting firms,

[19] Plut. *Cato Maj.* 21.
[20] Cic. *Verr.* V, 56, 57 and 59.

which were obliged to find a large personnel of clerks and agents who could speak Greek and knew something of the East, must at first have relied very heavily upon the business houses of the South for their staff. Naturally the Roman business managers who went to the province to supervise the work reported upon the new opportunities they found there for lucrative investments and thus gradually drew Roman capitalists directly into the field. At the time of Mithradates' raids in Asia and at Delos few real Romans[21] seem to have been slain, but the financial loss fell largely on the Roman forum.

Capitalistic ventures in the East were somewhat uncertain, but capable under favorable circumstances of bringing good profits. Many bought real estate, available at low prices because of a generation of turmoil and dread of invasions. The Romans having faith that their rule would insure peace, stable government, and sympathetic

[21] The eighty thousand "Italians" slain in Asia by Mithradates were indeed called *cives Romani* by Cicero (*de leg. Man.* 7), but only for rhetorical purposes. Those of them that were not slaves and freedmen were mostly South-Italian Greeks, as is revealed by Posidonius (quoted by Athenaeus, 213 B), who says that to save themselves "they assumed Greek dress and called themselves citizens of their own native cities again." The explanation is that the South-Italian Greeks had assumed (somewhat prematurely) the Roman toga and Roman names after the passage of the lex Plautia Papiria in 89. One year later, when Mithradates attacked the province, they renounced Roman citizenship for safety's sake and reassumed their former status, which in most cases must still have been their real legal status. The majority of the 20,000 inhabitants of Delos at the time of its destruction in 88 were Italian, according to Appian (Mith. 28).

courts invested where discouraged natives sold, and we find that many of Cicero's friends owned[22] plantations there.

More profitable however was money lending on the frontier where interest rates were high. At Rome where conservative courts had always protected property—indeed Sallust[23] complains that they were more concerned in supporting the laws of property than those of human rights—interest was usually stable and low, normally ranging from four to six per cent.[24] In Greece where vested interests were less considerately protected and a more venturesome spirit directed the money market, rates generally ranged from ten to twelve per cent. In Asia, where invasions, inefficient government, and indirect business methods made for insecure possession, twelve per cent. was a low rate even in times of peace. After the Mithradatic raids extraordinary inducements alone could lure money out of hiding, and Romans entered the market only provided the rates were attractive enough. The situation was not unlike that of our own frontier days when eastern bankers who lent money in Boston and New York at five and six per cent. asked twenty-four to forty-eight per cent. in the Indian and locust-ridden plains of the West and when even municipalities, since grown great and rich, were compelled to issue bonds at thirty-six per cent. In such circumstances senatorial edicts against high rates had little effect. Cicero's cor-

[22] Cic. *Ad Fam.* XIII, 69; 72; *Pro Flacco,* 14; *Pro Cael.* 73.
[23] Sall. *Cat.* 33 and 39.
[24] Billeter, *Der Zinsfuss.*

respondence has left a notorious record of how the Stoic Brutus[25] exacted forty-eight per cent. in Cyprus. To be sure he was sufficiently ashamed of his act to attempt to conceal it, but not enough to make reparation when discovered by Cicero. Even at twelve per cent., the legal rate, the profits to Roman bankers were enticing when the establishment of Roman law-courts promised to protect investors, and hence large sums were placed through bankers and private agents with spendthrift kings, semi-bankrupt cities and individuals. The king of Cappadocia[26] owed Pompey and Brutus a sum that ran into millions of dollars, the king of Egypt as we have noted borrowed several million dollars from Rabirius and his friends. Cluvius[27] of Puteoli, lent heavily to five Asiatic cities placing not only his own funds but also those of Pompey and others. Lampsacus, Tralles, Sardes, Mylasa, Alabanda, Heraclea, are some of the other cities incidentally mentioned by Cicero that owed money to Roman knights. Before Pompey went East the cities of Asia owed a total of forty million dollars, most of it doubtless to Roman capitalists. If this brought twelve per cent. per annum, private interests at Rome drew more than twice as much from this account as the treasury drew from the annual tribute.

That bankers in general were not held in very high esteem is not surprising. Respect for them has come

[25] Cic. *Ad Att.* VI, 1 and 3.

[26] Cic. *Ad Att.* VI, 1.

[27] Cluvius, Cic. *Ad Fam.* XIII, 56; Nicaea, Cic. *Ad Fam.* XIII, 61.

only with their participation in promoting and organizing productive industries, for which there was as yet little opportunity at Rome, and in financing state debts, which Rome generally tried to avoid. As a matter of fact Romans were liable to come in contact with bankers too frequently as mere money-changers or as money lenders secretly accepting questionable risks at high rates from riotous youths not yet in possession of an approaching inheritance. The enormous debts of young nobles like Caesar, Antony, Caelius, and Curio raised an ill odor about the forum. Even in the legitimate investment business and the placing of loans bankers performed only the kind of service which most of the wealthy lords could procure through clever and trusted stewards. These stewards were generally freedmen, and the association of business with them did not tend to elevate the latter in the general esteem. Then, too, they were often asked by wealthy men like Pompey to place funds at good rates with hard pressed eastern cities and potentates, acting as agents in affairs that the noblemen might hesitate to carry out through their own stewards and in their own names. When such affairs were generally talked of on the street they did not add to a statesman's dignity, and it is likely that Pompey, though he wrote polite letters of thanks to his bankers, preferred not to be seen chatting too intimately with them in the Forum. Cicero whose political program called for a close union between the nobility and the men of wealth assumed more cordial manners, occasionally inviting men like Vestorius to dinner, but he too adopted the usual patronizing tone when in his private

letters or in his speeches before the Senate he spoke of *negotiatores, faeneratores,* and *toculliones.* Caesar who prized business efficiency and gladly employed men of affairs in the army organization admitted men like Balbus into the Senate but he did not please the Senate in doing so. When bankers like Vestorius, for instance, stood well in the esteem of many Romans the fact was a special tribute to their personal integrity, to cultural interests, and probably to a refusal to engage in transactions considered questionable.

CHAPTER XIV

Commerce

Saint Paul's journey[1] in custody from Jerusalem to Rome was probably not unusually full of adventures for one which included half the length of the Mediterranean. To find a ship going Romeward his centurion took him on board an Asiatic coasting vessel at Caesarea, whence they skirted Syria and Cilicia. At Myra they transferred to an Alexandrian boat for the west. When the winds proved contrary they decided to put in at Crete for the winter, but were prevented by a storm which drove them helplessly up and down the Adriatic. Throwing overboard some of the tackling, they finally reached the coast of Malta where the frightened crew plotted to abandon the two hundred and seventy-six passengers and make for land in the life-boat, and were restrained only by the soldiers who were on board. The ship struck the shoals and its cargo of wheat was jettisoned, but to no purpose. When the vessel broke, the passengers had to make for land as best they could on pieces of wreckage. They remained all winter at Malta sailing in the spring by another Alexandrian ship that had wintered there. Putting in first at Syracuse, then at Rhegium they finally reached Puteoli, whence the passengers bound for Rome made the rest of the journey of one hundred and fifty

[1] Acts 27 and 28.

miles by road. Alexandria is now considered to be about four days from Rome.

A very brief account of Cicero's crossing of the Aegean[2] a distance of some 250 miles, in sixteen days *sine timore et sine nausea* is given us in a letter to Atticus. Six days brought him the one hundred miles from Athens to Delos. "Sailing has not been all play, though it is midsummer. We reached Delos six days out from Athens. On the sixth of July we reached Zoster in a contrary wind that held us there on the seventh. On the next day we had a pleasant sail to Ceos, thence we continued to Gyrae in a savage though not adverse wind, and thence to Syros and Delos somewhat more speedily than we intended. You know yourself what the open Rhodian boats are like. Well I won't stir from Delos till the Peaks of Gyrae stand clear." Greek steamers now make the journey to Smyrna in one day.[3]

It is to be noticed that neither of these travellers had Roman boats. St. Paul took passage on an Asiatic and two Alexandrian freighters; Cicero out of regard for his station and his mission chartered a special boat, but it was apparently Rhodian. The fear of wind and weather apparent in both accounts was probably not due to igno-

[2] Cic. *Ad Att.* V, 12, cf. V, 13.

[3] These were of course slow journeys. Pliny, *N. H.* XIX, 1, says that in favorable weather Sicily could be reached from Alexandria in six or seven days and Puteoli in eight, and that six days might bring a sail from Cadiz to Ostia. When Cicero was proconsul in Cilicia he usually received his mail from Rome (via Brundisium—the Gulf of Corinth—Athens—Smyrna) in five or six weeks.

rance of seamanship;[4] the Greeks fairly lived on the sea, nor to the fragility of the boats; the average large freighter was then a boat of two or three hundred tons,[5] as large therefore as those in which our early Salem skipper roamed to India and China without a fear. The chief difficulty for the ancient mariner resulted from his lack of a compass. It was this that made him follow courses along well known coast-lines and islands, which in turn exposed him to frequent danger of shipwreck whenever storms arose, and it was chiefly this which brought all shipping to a standstill in winter, when the sun and stars were seldom visible.

Of the organization and methods of Rome's maritime trade in the late Republic we are not well informed. At Athens the situation can be reconstructed from the cases of the Attic Orators whose orations are full of references to shipping. Since Romans at this time seldom engaged in commerce, the orations offer practically no information. Some compensation is afforded us in cases cited by the Jurists of the Digest. These to be sure are somewhat too late for our immediate purposes, but since they reveal a logical development of maritime commerce from the situation depicted in Lysias and Demosthenes we may proceed by way of striking a mean between the earlier

[4] It is generally agreed that the Greeks and Romans knew the art of tacking against adverse winds, cf. Pliny, *N. H.* II, 12, 8; Lucian, *Navig*, 9.

[5] There are many references to boats of 10,000 talents, about 250 tons. The ship that carried the Vatican obelisk to Rome seems to have had a capacity of 1,300 tons. Cf. Torr. art. *Navis* in Darem.-Saglio.

and later evidence and comparing our conclusions with such casual references as we have from the Ciceronian age. The Greek merchants[6] like our Salem skippers of colonial days were usually independent ship-owners, sometimes even ship builders, who "tramped" from port to port with whatever cargo seemed to promise best profits. They employed their own capital or sums borrowed at high maritime rates, they personally conducted the buying and selling of their cargoes, and when the season neared its end, they found if possible a desirable cargo for the home port, whither they repaired to await the return of the spring sun. Of course they also "rented space," as they called it, to merchants who filled orders for foreign consignees, but this was considered a minor part of their business. "Packet boats" with regular schedules or prescribed routes seem to have been unusual. When such a trader grew wealthy he was apt to acquire more boats in which he placed trusted agents to do the same kind of business for him. Since, however, these agents had less discretion than the owner, and generally had to be advised what courses to take and in what articles to trade, the growth of such shipping houses tended somewhat to reduce tramp-trading in favor of more regular packet shipping. But progress along these lines did not continue far in Greece.

In Cicero's day the irregular service pictured by the Greek writers apparently still prevailed, especially in eastern waters where Greeks and Orientals seem to have

[6] Huvelin, art. *Negotiator,* Darem.-Saglio.

dominated the seas.[7] The interesting mariner's guide-book called the *Periplus of the Erythraean Sea*[8] implies that the merchant trader of the old type dominated the Arabian, Persian, and Indian trade. Claudius' decree[9] in encouragement of grain importation leaves the inference that ship builders, ship owners, and grain merchants were sometimes identical, Trimalchio[10] is pictured as a merchant who built his own ships, and Philostratus[11] still assumes that the Greek merchants accompany their cargoes from port to port. When however the Romans began to build ships and invest in foreign trade the more regular system which is illustrated in the Jurists made some headway. Ulpian and Paulus usually assume that the owners

[7] In 59 B.C. Cicero assumes that the negotiatores who carry most of the goods through the harbors of the province of Asia are Greeks (*Ad Att.* II, 16, 4). In the Civil war of 49, Pompey thought he could starve Italy to submission (*Ad Att.* X, 8, 4) by seizing the ships of Alexandria, Colchis, Tyre, Sidon, Aradus, Cyprus, Pamphylia, Lycia, Rhodes, Chios, Byzantium, Lesbos, Smyrna, Miletus, and Cous" (*Ad Att.* IX, 9, 2). In the Civil war of 43 Dolabella was able to collect a hundred freight ships of over 2,000 talents on the coast of Lycia in a very short time (*Ad Fam.* XII, 14; 15). Finally, though Claudius gave special rewards to Romans and Italians who entered the service of the annona, the inscriptions of the shipping companies stationed at Ostia show a preponderance of foreigners (*Bull. Com.* 1915, 187).

[8] Schoff's translation with notes may be consulted (Longmans, 1912). The book was written in the Neronian age.

[9] Suet. *Claudius,* 19 and 20. See also Cic. De Off. III, 50.

[10] *Cena Trimalchionis,* 76.

[11] *Vita Apoll.* IV, 32, 2.

of vessels (*exercitores*) employ ship masters[12] (*navicularii*) who transport goods for, or as they call it, "rent space to," importers and exporters[13] (*mercatores*) very much as is generally done to-day. They even assume that ships often have regular routes,[14] engage in a definite line of business, and that some, like those running between Brundisium and Dyrrhachium, specialize in a regular passenger service.[15]

This advanced specialization and organization of the business was to be expected from the condition prevailing at Rome. When timber became scarce in certain centers of industry and orders had to be placed at more favored ones,[16] shipbuilding naturally specialized. Merchants who grew wealthy in trade and expanded their business far and wide naturally had to employ agents and super-cargoes to supervise a part of it. And this tended to create import and export firms that directed the course of commerce from land. When, moreover, the state undertook to encourage and insure regular shipping with

[12] *Digest,* 14, 1, 1, 3 and 7 and 12 and 15. Ulpian, however, knows of instances where the *mercator* is also *navicularius,* Digest, 4, 9, 7, 2.

[13] *Digest,* 14, 2, 2, 1; 14, 1, 1, 3.

[14] *Digest,* 14, 1, 1, 12.

[15] *Digest,* 14, 1, 1, 12. The passengers apparently had to carry their own food for the journey, 14, 2, 2, 2.

[16] The premiums offered by Claudius to Romans and Italians did not suffice, so that Nero had to extend premiums to foreign shipbuilders as well (Tac. *Ann.* XIII, 51). This was probably due to lack of timber in Italy. Ostian shipbuilders doubtless imported lumber from abroad, since the Ostian gilds of shipbuilders continued to flourish, *C. I. L.* XIV, no. 256.

the grain producing provinces in order to make certain of Rome's food supply, organized schedules[17] were established to so many important points that shipping companies could depend upon the service and conduct their business from their offices.

That Romans had some share in this development of the shipping industry is clear from the new methods introduced, but our explicit references are few. Cicero mentions a Lentulus[18] who owned ships that ran between Athens and Rome. Rabirius mentioned above seems to have had a "fleet" of ships. He was therefore both ship owner and merchant but probably did not accompany his cargoes in the Greek fashion. In the Empire when the publican companies were no longer strong enough to engage sufficient grain ships for Rome's food supply, Claudius, as we have noted, tried to encourage Roman and Italian builders and traders to supply the want.[19] That his offer did not suffice is evidenced by the fact that Nero presently had to offer tax exemptions to foreigners who would aid in this service, and the existence of several foreign companies at the offices of the Ostian grain

[17] The Alexandrian grain fleet is frequently mentioned, and the shipping companies that had their offices behind the theatre at Ostia seem also to have engaged in a very regular service, Calza, *Bulletino Com.* 1915, 187.

[18] *Ad Att.* I, 8; I, 9, 3. Cicero asked Atticus to ship him some statuary by these boats. The goods were later put off at Caieta near Cicero's Formian villa.

[19] He offered ship insurance and certain civil rights to those who built large ships and engaged in importation of food to Rome for a period of six years. Suet. *Claud.* 19, 20.

bureau may be taken as a commentary on the failure of Claudius' measure and the success of Nero's.

If we wish to gain a fair idea of Rome's commerce before the Empire a convenient method is to study Rome's chief seaport of that time, the city of Puteoli,[20] on the bay of Naples. In the Second Punic War Rome was hampered in her operations against Hannibal at Capua by not having a port of her own in this region. Immediately after the war, therefore, she sent a small colony of three hundred men to the old town of Puteoli. This number was obviously just enough to guard the port; indeed the Senate apparently failed to comprehend the great possibilities of the place, for no land was given the colony on which it might expand or gain the support of a rural population of its own. Port dues were instituted but the shipping of the Roman colony at Capua was invited by placing another custom house between Naples and Roman Campania. Puteoli soon began to grow as a Roman port at the expense of Ostia even though it was a hundred and fifty miles further away. The chief reasons were that the harbor was deep and sheltered, and that ships could find some exports at Puteoli for return cargoes whereas Ostia, near Rome, offered very few. As we have seen, the iron industry of Populonia moved to Puteoli and extended to the nearby towns of Cales and Minturnae. The excellent bronze-ware made at Capua was establishing a market all over the North and West, and large quantities of it were shipped especially to Marseilles,

[20] See the excellent history and description of Puteoli by Dubois, *Pouzzoles Antique*, 1907.

whence traders carried it up the Rhone for wide distribution in Gaul and Germany. It was also found that the volcanic sand[21] of Puteoli (pozzolana) possessed excellent qualities for the making of hydraulic cement and it was in demand wherever harbors and deep foundations were to be built. Sulphur from the Solfatara, and the earthen-ware of Cales and Puteoli made from the clays of Ischia, likewise found extensive markets. Thus the port grew steadily in importance, though of course, because of Neapolitan competition, not very rapidly. Lucilius[22] writing in the Gracchan days calls it "a lesser Delos," and at the time Delos had perhaps ten to fifteen thousand inhabitants.

The proximity of Puteoli to old Greek harbors like Naples was on the whole an advantage, for it could draw ships, experienced ship-builders and sailors from well equipped yards. After Rome acquired provinces in the East it could also find numerous Greek-speaking business agents and clerks for the publican companies, and the capitalists that turned eastward. Nor is it surprising that bankers like Philostratos[23] of Syria drifted to Naples to take advantage of these new Greco-Roman connections. Such bankers profited especially by writing marine insurance not only for Puteolan firms but also for foreign shippers whose return cargoes loaded at the harbor.

The Social War of 90 B.C. aided Puteoli in an unex-

[21] On the industries, see Dubois, p. 117.

[22] *Delumque minorem,* Lucilius, III, 123. In Augustus' day it was the chief port of Italy, but even then the imports exceeded the exports, Strabo, XVII, 793.

[23] *Bull. Corr. Hell.* 1912, p. 67.

pected way. This is indirectly revealed by the Verrine speeches of Cicero. It would seem that when such Greco-Campanian towns as Pompeii, Nola, and Abella were punished for their adherence first to the allied cause and later to the democratic party under Marius, many of the inhabitants took refuge with Sertorius in Spain. Later when this rebel leader began to lose power many of them, being accustomed to the sea, engaged as sailors wherever possible, not abstaining entirely from joining Spanish and Cilician pirates at times. Ultimately, great numbers drifted into the service of Puteolan shippers, so that when Verres undertook to apprehend at Sicilian ports such sailors as were accused of piracy there arose a cry[24] from the firms of Puteoli that he was arresting their sailors, business agents and even members of the firms! The incident proves illuminating for the history of Puteolan commerce although Cicero did his best to conceal the disagreeable items of the story.

The city soon took on a semi-oriental appearance because the traders of all the great Eastern seaports like their successors of the medieval *fondachi* at Venice established agencies there. Such foreign colonies rented particular docks and warehouses, took possession of a separate quarter of the town, erected their own temples and

[24] Verr. V, 154. This, of course, explains how Verres put "Roman citizens" to death. They were probably former *socii* who might claim citizenship by the laws of 89 and 88. Verres was too much of a Sullan to recognize such claims in the case of *socii* who had taken to privateering rather than accept the decision of the social war.

had their own cemeteries. In the second century the "station" of the Tyrians[25] was still paying annual rentals and dues to the amount of 100,000 denarii (then about $7,000), although the colony was "then far smaller than formerly." The colonies of Beirut, of the Nabataeans and of other peoples had temples of their own; the people of Baalbek had a cemetery of four acres; and dedicatory inscriptions erected by natives of Asiatic cities are very numerous. Such inscriptions at Rome's principal harbor raise serious doubts as to whether the Romans ever succeeded in becoming a seafaring people.

It is not our purpose to follow the vicissitudes of commerce through the Empire. Suffice it to say that when Claudius dredged out a good harbor at Ostia and built jetties to keep the Tiber mouth clear, Puteoli lost much of its shipping and especially its grain trade. However the lack of return cargoes at Ostia still prevented that new harbor from monopolizing all the shipping. Many boats preferred to make port at Puteoli and send the goods bound Romewards by road or by small coasting vessels.

The trade of Italy was of course very unevenly balanced: even Puteoli in the best days of Campanian industry could never fill the ships that came in loaded.[26] Latium exported very little. Italian wines went eastward through Egypt, according to the Periplus[27] cited above,

[25] *Inscr. Gr.* XIV, 830. The inscription shows that the Tyrians had a similar *statio* at Rome. *Stationes municipiorum* are mentioned in Suet. *Nero*, 37. Cantarelli (*Bull. Com.* 1900, 129) has well compared these with the foreign *fondachi* at Venice.

[26] Strabo, XVII, 793.

[27] *Periplus*, 6 and 49.

but these were doubtless Calenian and Falernian wines carried cheaply as ballast. The Alban varieties could not compete with the numerous good Greek brands. Latium began to export some olive oil[28] in Cicero's day, but this did not last long. In the Empire when Rome had learned the value of this article, very large quantities were imported from Spain and Africa. No manufactured articles of importance seem to have gone from Latium: in the long lists of goods enumerated in the Periplus Rome is not even mentioned. Campania exported chiefly iron and bronze-ware, some pottery, wine, olive oil, and Capuan ointments. The rich Po Valley[29] sent wine, pitch, lumber, grain, pork, wool and cloth chiefly to Rome, and the jars that contained Venetian and Istrian products have been found far up in the valleys of the Tyrol.[30] Arretine pottery as we have seen also found a market all over the western provinces until in the early Empire the branch-potteries of Gaul captured the trade of the mother firms. That completes the list of important Italian exports. Needless to say, in such circumstances, Italy could not sustain an equilibrium of trade. Her ledgers balanced only because of the large credit accounts on capitalistic investments and the constant inflow of tribute. Even then the government found the outflow of specie disturbing and had to resort to desperate measures to keep it at home. We are reminded of recent governmental orders

[28] Pliny, *N. H.* XV, 2.
[29] Strabo, V, 12.
[30] Dessau, *Inscr. Lat. Sel.* 8572.

by the law which Gabinius[31] had passed in 67 forbidding provincials to borrow money at Rome, and by the effort that Cicero made in his consulship[32] to have custom officials at Puteoli seize all silver and gold that was being taken out of the country. Such measures were of course futile in the long run. Pliny[33] a century later informs us that at least five million dollars per year went to China, India and Arabia for articles of luxury.

The principal imports[34] aside from grain originated in the East. The provinces of Asia and Pontus supplied some grain, salt-fish, timber, dried fruit, precious stones, wine, and the tapestries, draperies and rugs for which Anatolia is still famous. Syria sent much glass-ware from factories in Sidon and the famous purple dyes and cloths for which Tyre was noted. The linens of Byblus and Beirut and the cedar of the Lebanons were also highly prized at Rome. In times of peace Northern

[31] Cic. *Ad Att.* V, 21, 12. The law was also meant to prevent provincials from being able to misuse funds in influencing courts at Rome. However, the attempts made to keep gold and silver in Italy at this time seem to reveal the real animus of the law. Cicero (*Pro Flacco,* 67) states that several consuls had tried to prevent the export of silver and gold.

[32] *In Vat.* 12; cf. *Pro Flacco,* 67, which shows that efforts were also made to prevent the hoarding of gold in temples. Perhaps the Jews when prevented from sending temple gold from Italy, simply drew on accounts in the provinces, and the governors had instructions to check this indirect drain upon the supply.

[33] Pliny, *N. H.* XII, 84.

[34] This is but a brief summary of the lists given in Darem.-Saglio *art. Mercatura,* by Cagnat and Besnier. For Pontic trade see Robinson, *Ancient Sinope, Am. Jour. Phil.* 27, 135.

Syria tapped the caravan trade of Parthia whose merchants brought Chinese silk and Indian cotton, pearls, ivory and spices. To Gaza in the south came the Nabataean caravans bringing Arabian incense, spices, myrrh, and precious stones. The state factories of Egypt exported much fine cloth, glass and paper, and Alexandrian merchants expedited Ethiopian ivory, beasts for the games, and black slaves, besides transporting from the harbors of the Red Sea all the products of India and Arabia. This eastern sea trade received a great impetus from Augustus who, contrary to Roman traditions, adopted from Egypt the mercantilistic policy of the Ptolemies, so far improving upon it that the shipping of the harbor at Myos Hormos[35] on the Red Sea quickly tripled and quadrupled.

From the West came fewer finished articles but more raw products. Marseilles, then an independent Greek city controlled the trade of the Rhone, brought down metals, hides, rough wool, salt meat, cheese, slaves and amber from the north in return for Italian iron, bronze, earthen ware and the fine handiwork of the east. Her traders also brought tin from the British Isles by way of the Rhone and Seine. Further west the Roman colony of Narbo[36] established a new road by way of the Gironde in search for British tin, and tapped the mines of Aqui-

[35] Strabo, II, 5, 12.

[36] Cicero, *Pro Fonteio* and *Pro Quinctio* show that these colonists and Roman negotiatores are carrying on a large wine trade and an extensive banking and real estate business in Narbonese Gaul.

tania. From Northern Spain came rich stores of metals and also finished products made of the excellent Spanish steel. The central portions produced good fabrics of wool and linen, and the south an ever increasing quantity of olive oil, wine, wheat, salt pork, fish, and leather.

Despite this great amount of trade the machinery of transportation is so far from showing uniformity that we can hardly expect well organized systems of salesmanship and distribution, though in general we may assume that every harbor had a wholesale market[87] where buyer and seller might meet. But the use of this market varied according to time and place. In the period when commerce was mostly of the "tramp" class, the condition which in fact created these market-places, the incoming merchant unloaded whatever wares he thought he might sell, and displayed them in the market while his ship stood at anchor. At the same market he could look over the wares of his competitors, buying and taking on board what seemed to him to promise good profits elsewhere. To the same market came of course the small shop keepers of the town to buy for their retail trade. In this system which still prevailed to some extent in Cicero's day, middlemen buyers and salesmen were not essential. But there was an advanced stage of trade, already noticed at Puteoli, which also dispensed with middlemen to a certain extent. The Tyrian exporters, for instance, did not sail the seas with their cargoes, but rented ware-houses and dock space at Puteoli where their countrymen, agents or partners, received consignments,

[87] See Besnier, art. *Portus,* Darem.-Saglio.

presumably displaying and selling their wares to retailers, in their local offices. They had a similar *statio* at Rome to which their Puteolan agents sent out such parts of the consignments as were destined for the city. Puteolan inscriptions prove that this system was used by many eastern cities. Indeed the Italian agora at Delos is apparently an instance of occidentals adopting the same system, and the *stationes* of Ostia[38] were apparently erected by Rome for analogous purposes. With the development of the shipping business and the growth of exporting firms that operated from land, there doubtless also arose commission houses at the ports of entry though we are not explicitly informed about them[39]

Of a developed system of salesmanship there is little trace, probably because there were few factories such as now send out salesmen and "drummers," and the general existence of market places created by a more primitive system generally brought the product to the buyer with sufficient success. There is, however, an indication that some factories did not have to bring their goods to the market place. At the potteries of Auvergne[40] have been found large invoices of goods that are thought to be

[40] Déchelette, *Les Vases Céramiques de la Gaule,* I, 86 ff. The buyer in this case seems to have been a wholesale dealer and distributer of earthenware, probably the merchant spoken of in inscriptions as negotiator artis cretariae, *C. L. L.* XIII, 1906 and 6366.

[38] Calza, in *Bulletino Com.* 1915, 187.

[39] Probably some of the ἐγδοχεῖς of Delos were commission merchants, *Bull. Corr. Hell.* 1883, p. 467; 1887, 245 and 252. In some cases they are agents of the shippers.

orders placed by wholesale pottery merchants for manufacture and future delivery. If this be a typical case the buyers went to such factories as then existed and placed their orders.

In general it may be said that the producer was in that simpler day nearer the consumer than at present, that in foreign trade the shipper brought his goods to the harbor market-place for the retailer or consumer, and that to a far greater extent than to-day the producer of domestic articles was himself an artizan and shopkeeper who sold directly to the consumer what he made in his small shop. Middlemen[41] were relatively very few.

Freight and passenger rates seem moderate despite the high insurance and the slow movements on the sea. The reason was of course that ships were built and manned by cheap labor, and that port dues were generally lower then

[41] Many of the negotiatores mentioned in imperial inscriptions are wholesalers who act as middlemen between large producers and retailers. As such we should probably class the following: *neg. artis saponariae, C. I. L.* XIII, 2030; *neg. ferrariarum,* X, 1931; *negotians calcariarius,* X, 3947; *Notus . . . vendenda pelle caprina,* IX, 4796; *negotians coriariorum,* VI, 9667, etc. However, shopkeepers sometimes style themselves *negotiatores,* e.g. VI, 9664; 33886.

The Jurists also speak of "*circitores* who sell or hawk goods for clothiers or linen weavers" (*Dig.* 14, 3, 5, 4). They resemble our peddlers and were very numerous, but the jurists speak of them as being for the most part slave agents. The Jurists likewise speak of "slaves who are sent out to buy merchandise for their masters' shops" (*Dig.* 14, 3, 5, 7). The use of slaves in such capacities probably militated against the growth of a middleman system.

than in tariff countries to-day. A thousand bricks (over two tons) were sent from Athens to Delos (one hundred miles) for about fifteen to twenty drachmas ($3–$4) which was about 25 per cent. of the purchasing price. For half a hundred weight of minium sent from Athens to Ceos the expressage was one obol (three cents). The freight of a ton of stone from Paros to Delos[42] was twenty-five drachmas, but heavy stones were expensive to handle with the cranes of the day. In the third century A.D. wheat was brought to Rome from Alexandria for two cents the bushel, which is about the modern rate. In this case the ships were probably insured gratis by the state. Of course regular freight rates hardly came into consideration in a large part of the tramp shipping since the merchant went up and down the seas bartering with his own goods.

Passenger fares seem to us to have been very low. Passengers however appear to have been responsible for their own sustenance, the quarters were probably far from luxurious and of course loss of life by shipwreck unlike loss of freight entailed no financial loss to the carrier. The fare from Aegina to Athens seems to have been two obols, from Alexandria to Athens only two drachmas. One could cross the Aegean for four obols.

Did the Romans follow the suggestions of Gracchus and enter the commerce of the world that their armies had opened to them? If we gather all the literary refer-

[42] The freight prices cited for Delos are for the third century B.C.; cf. Glotz, *Jour. de Savants*, 1913, pp. 16 ff. Other items may be found in Böckh, *Die Staathaush. der Athener*, I³, 76.

ences to Romans who are in business in the provinces and add the inscriptional records of *conventus*[43] of Romans abroad we must conclude that many heard and obeyed the call. Cicero's speeches *Pro Quinctio*[44] delivered in 81 B. C. and *Pro Fonteio* given in 69 B.C. are evidence that the colony at Narbo, founded for commercial purposes by Gracchan followers, had accomplished its purpose. It had undoubtedly succeeded in capturing the western Gallic trade from Marseilles. The Gracchan colony in Carthage was deprived of its primary function when the Senate stupidly refused to let a city be built that might have become an excellent trading center, and thus the chief commerce was thrown to independent African cities like Utica. But the settling of the Gracchan colonists is no doubt what accounts for the presence of Roman traders in places like Cirta[45] during the Jugurthine war. The Verrine speeches prove that besides money lenders and real estate speculators there were also some merchants, especially Campanian ones, in Sicily, despite the refusal of the Senate to allow Roman publicans to

[43] Kornemann, art. *Conventus,* Pauly-Wissowa; Schulten, art. *Conventus* in Ruggiero, *Diz. Epig.;* Pârvan, *Die Nationalität der Kaufleute.*

[44] Quinctius had been a partner of one Naevius in real estate business, farming, cattle raising, and slave-trading near Narbo. Fonteius was accused of having as governor of Narbonese Gaul created difficulties for Roman traders by exacting unreasonable duties on wine.

[45] Sallust, *Jugurtha,* 26 (*Italici*); 47, at Vaga; 64, at Utica. See also "Caesar," *Bell. Afr.* 97 and 36. The *faeneratores* driven from Sardinia (Livy, 32, 27) by Cato were probably Carthaginians.

exploit the tithe gathering.[46] The entry of the Roman trader into the province of Asia to take advantage of the bargains offered by the tax gatherers we have already noticed.[47]

Despite the fact that the Senate did not care to procure preferential tariffs for Romans[48] they did have certain advantages in provincial trade. Not only did they possess the kind of prestige that comes from a strong nation's protection, a thing often neutralized by a haughty bearing toward the natives, but they had an advantage in the courts. Roman citizens, and somewhat to our surprise, other Italians with them, formed in foreign cities separate communities called *conventus*.[49] From this group the governor was required to draw his jurors. Thus they were generally assured a sympathetic hearing in their cases against natives, a fact that often secured them a trifle more than due justice, unless the governor was a very haughty aristocrat like Verres who carried to the province his Rome-bred animosity against business men. Such *conventus* of Roman and Italian bankers, publicans, traders, land owners, and ex-soldiers settled

[46] Rostowzew, *Staatspacht.*

[47] A typical trader is Falcidius (*Pro Flacco,* 91), who bought from the publicans the tithes of whole towns. Avianius mentioned in Cic. *Ad Fam.* XIII, 75, had gone into the Eastern grain trade after serving for a while on Pompey's official grain commission.

[48] Romans and Italians were exempted from the *octroi* duties of Ambracia by an early treaty but this is the only record of its kind. See Frank, *Roman Imperialism,* p. 279.

[49] See Kornemann, *loc. cit.*

in the provinces, existed in almost every town of importance during the last years of the Republic. They happen to be mentioned in at least twenty-five cities of Asia, twelve cities of Greece, seven of Africa, five of Sicily, and three of Syria.

We must however, bear in mind the definition of *negotiator* during the Republic. He was primarily a banker and land speculator, not a real merchant. We need also to remember what the survey of Asia, Delos, and Puteoli have taught, that even these capitalists are more often Campanians and Italiote-Greeks who became "Roman citizens" by the laws of 89 and 88, than representative Romans of the old stock, that many of the "Roman citizens" settled in the provinces are native ex-soldiers[50] who have attained citizenship by service in the army, that the trade which depended upon connections with the quasi-public tithe-farming was of a temporary character, and that we actually have very few references to Roman shippers like Lentulus and Rabirius. In other words, Rome's participation in commerce can all too readily be over-estimated if hasty conclusions are drawn from the existence of *conventus* and *negotiatores*.

In the East[51] references to Roman *negotiatores* and *conventus* dwindle very rapidly during the early Empire showing how slight was their hold upon the trade. Bank-

[50] For example, the old soldiers called back to service in Macedonia and Crete, Caes. *B. C.* III, 4. Some of these were Italians who settled down in the country where they were discharged. Some were natives simply returning home.

[51] Pârvan, *op. cit.* p. 122.

ers and investors who had come in the train of publicans to profit from unsettled conditions apparently did not thrive when the publicans were withdrawn and a reign of peace permitted the natives to stabilize their finances. The normal commerce of the East never got beyond the control of the natives, while the grain trade into which Romans had entered came to an end with the development of Egypt and Africa. Eventually the occidentals who had settled in the East—Italic Greeks, some home-seeking Romans and freedmen, veterans of the army, and members of Caesar's proletariat colonies—lost their identity and merged into the Hellenic population. It is surprising to find how soon the colonists at Sinope for instance became Hellenized and forgot how to use respectable Latin on their tombstones.[52] Roman investments of course remained in the East especially in latifundia accumulated by purchase or by the foreclosing of mortgages. But it is probable that their management was undertaken by native agents under the supervision of occasional visits from the Roman *dispensatores*. At any rate the East remains socially under eastern control.

In the rich province of Egypt annexed by Augustus Roman business made even less headway. The Ptolemies had so thoroughly organized the state monopolies and the Alexandrian trade for the benefit of the treasury that the Emperors saw no advantage in taking these things out of practiced hands. Roman business men found no bargains there and generally remained away.

[52] Robinson, *Ancient Sinope;* Hahn, *Rom. und Romanismus,* p. 95.

In the West however, the situation was more favorable to Roman enterprise. Here the conquerors met people in a lower stage of culture who were eager to learn their language, buy their wares, and adopt their manners. With the fall of Marseilles in the Civil War, Roman colonies like Narbo, Lyons, and Arles, became the centers of culture. From such places men went not only to lend money and buy land but also to direct trade by the numerous river boats of the Rhone, the mule-road over Tolosa (Toulouse) to Burdigala (Bordeaux), and to the merchant camps on the Rhine frontiers which supplied the traders in Germany. Many of these traders again bear Greek cognomina[53] as the ubiquitous freedmen generally did. Native Gauls also entered into the currents of traffic in great numbers, as the Celtic names show, but there were Romans enough, with the aid of a liberal naturalization policy on the part of the Emperors and the frequent establishment of Roman schools, to transform the West quickly into a thoroughly Romanized country. By the fourth century it is likely that more people in Gaul than in Italy read Vergil and Cicero.

The imperial inscriptions[54] of the city of Rome go far to bear out the inference generally drawn from the pages of Cicero, that Romans were in general averse to trade. However much the great merchant was respected, the successful wholesaler is usually a man who has served an apprenticeship at retail trade, and for him Rome had little good to say. That is of course an important reason

[53] Pârvan, *op. cit.* pp. 24, 25.
[54] *Ibid.*, pp. 41, 42.

why there are so many colonies and stations of the foreign shipping cities at Rome, Ostia, and Puteoli, and also why so very many of the names of Roman wholesale dealers, *negotiantes vinarii, olearii, materiarii, vascularii,* and the rest, bear Greek cognomina. The freedmen were the folk who gained control here also. Acquiring their liberty through diligent and obsequious service they applied the skill they had acquired in managing some rich master's affairs and the money that the master willingly lent with a prospect of good returns, and pushed boldly into all the ventures that the land-loving Roman of the old school refused to touch. Typical of this class is Trimalchio who in Petronius'[55] sketch entertains his fellow freedmen over the cups with the rambling story of his ventures at the seaport town of Puteoli: "I too was once just like you, but by my ability I've come to this. It's brains that makes the man, all the rest is trash. I buy cheap and sell dear; others may have different ideas. I'm running over with good luck. As I was saying it's my careful management that has brought me all this wealth. I was only as big as that lamp when I came from Asia, in fact I used to measure myself by it every day. By heaven's help I became master in the house, and then I caught the fancy of my fool of a lord. So at his death he made me co-legatee with the Emperor and I got a senator's fortune. But no one ever has enough. I wanted

[55] Petronius, *Cena Trimalchionis,* 75–6. The translation is in part from Lowe's edition. It may be noted that the articles mentioned in Trimalchio's cargo are those generally exported from Campania. The scene is laid at or near Puteoli.

to go into business. To cut the story short, I built five ships, loaded them with wine—it was worth its weight in gold then—and sent them to Rome. Every ship was wrecked just as though I had ordered it; that's a fact. In one day Neptune swallowed up thirty million sesterces. Do you think I lost courage? No, by heaven, the loss only whetted my appetite as if nothing had happened. I built more ships, larger, better and luckier ones, so that no one should say I wasn't a man of courage. You know a great ship has great strength in itself: I loaded them with wine again, pork, beans, perfumes and slaves. Then my wife did a respectable thing; she sold all her jewelry and dresses and put in my hand a hundred pieces of gold. This was like heaven to my fortune. What heaven wishes comes quickly; by one trip I cleared a round ten million. At once I bought back all the estates that had belonged to my master. I built a house and traded in cattle; everything I touched grew like a honeycomb. When I found that I had more than all the citizens of the town put together I quit the counter and set up my freedmen in business for me. Then I built this house. As you know, it was once a hovel, now it's fit for a god. It has four dining rooms upstairs, my own bedroom, this viper's sitting-room, a very fine porter's lodge, and spare rooms for guests. Take my word for it, if you have only a cent you are valued at a cent, but if you've got something you'll be thought worth something. So your humble servant who was a pauper has come to be a prince."

CHAPTER XV

The Laborer

The universal law of inertia that makes of every man a potential parasite has generally led naïve thought to the inference that labor must be the penalty of sin imposed at the exit-gate of paradise. Ancient philosophers like Aristotle and Zeno while hardly satisfied with an explanation so simple arrived at an equally low estimate of a life spent in manual labor by dwelling upon the moral and intellectual futility to which years of constant drudgery led. And yet the ancient workman seldom committed suicide in despair. He possessed of course other saving instincts which provided him with unanalyzed compensations, and doubtless many a carpenter's son consoled himself with vaguely sensed beatitudes that seemed to pronounce a blessing upon the poor in spirit, the meek, the non-resisting, even though few such meditations have survived for us. Cicero, the Academic, and Posidonius,[1] the Stoic, merely repeated the aristocratic scorn for labor which their instinctive aversions and their experience in a society permeated with slavery seemed to justify.

Vergil here as so often questions the wisdom of his age. He proves that he knows a gospel of work, in a picture,

[1] Cic. *Pro Flacco*, 18, Opifices et tabernarios atque illam omnem faecem; cf. *Cat.* IV, 17; *Acad. prior*, II, 144. Posidonius quoted by Seneca, *Ep.* 88, 21, *volgares et sordidae . . . opificum.*

not without humor, of Jove who, bringing to end the era of blissful indolence,[2]

> Shook from the leaves their honey, put fire away,
> And curbed the random rivers running wine,
> That use, by gradual dint of thought on thought,
> Might forge the various arts.

It was not without a conscious smile that he chose as his illustration of a happy existence the ex-pirate peasant who, "In pride of spirit matched the wealth of kings." Vergil never forgot the simple people of his native Mantua where a sturdy race still tilled the soil; he wrote most of his poems near Naples where to judge from his favorite illustrations he must have stopped frequently before the benches of the smiths and ship-builders enjoying the contemplation of the industries so active there; and he had drunk deep in the philosophy of Lucretius which, permeated with the idea of evolution, refused to see in the history of the arts and crafts merely an expression of degrading vanity and greed and not rather a proof of progressive development. We may, if we will, repeat the time-worn judgment that Rome scorned labor, but we must of course remember that Cicero's circle was not all there was of Rome.

In Cicero's time[3] most of the work in the household, in

[2] Vergil, *Georgics*, I, 121–146. The Corycian gardener, *ibid.* IV, 125; cf. *ibid.* II, 458. Horace also plies the hoe on the farm, *Epist.* I, 14, 39.

[3] Park, *The Plebs Urbana in Cicero's day;* Kuehn, *De Opificum Romanorum condicione;* Blümner, *Privat-Altertümer*, p. 589; Brewster, *Roman Craftsmen and Tradesmen of the Early Empire;* Leffingwell, *Social and Private life at Rome in the time of Plautus and Terence.*

the shops and factories, and on the farm, at least in and near Rome, was performed by slaves and exslaves. All of Cicero's household servants are of this class, so are his secretaries, his business managers, and stewards, his readers, librarians, couriers, the tutors of his children and even the men who help him delve out historical and philosophical details for his essays. Atticus, his publisher, has a host of trained slaves who not only copy the manuscripts neatly but also read the proof with a view to correcting the substance. When Cicero needs repairs made or new buildings erected on his estates, he is apt to let the contract to his slave farm manager,[4] and slaves and freedmen are frequently mentioned as the renters of estates and gardens.[5]

The city house of the rich man swarmed with slaves assigned to petty jobs of caring for the jewel box, keeping the shoes, dancing at supper, guarding the linen chest, and whatnot. These were evidences of wealth and a household might run to hundreds and thousands of souls for the purpose of demonstrating a thing so all important. The larger farms were generally under the supervision of a slave manager (vilicus) who had a swarm of slaves working for him. Varro and Columella both assume that this troup is adequate for all the general work, and on a large farm even for such special work as carpentry, masonry, and smithing. The earlier jurists also, like Alfenus and Trebatius, mention weavers, smiths,[6] barbers,

[4] Cic. *Quint. Fr.* III, 1, 2; 1, 5 and 33; 9, 7.
[5] Cic. *Ad Fam.* XVI, 18, 2; Labeo, in *Digest,* 14, 3, 5, 2.
[6] *Digest,* 33, 7, 12, 5, and 16, 2.

bakers, and other skilled artizans as being found on individual farms.

It is true, however, that the independent small farm never quite disappeared from Italy, persisting especially in the inexhaustible districts of the Po Valley, in the mountain valleys[7] where at times only small plots were available, and on the southern coast where Greek tenacity still clung to old methods. A tendency was also noticeable, which in the empire increased rapidly, of renting lands to freedmen and slaves[8] on shares, the slaves presumably gaining their freedom in most cases where they had proved themselves trustworthy enough for such contracts.

In factories slaves were generally employed in Cicero's day. In the Arretine potteries, and in the brickyards, we note that freedmen are managers, which implies slave-labor for the heavy work. In the factories of Campania the evidence does not suffice for a decision since Greek cognomina in that region are not significant. The situation at Pompeii implies a very large number of free citizen laborers, a thing we may assume probable wherever Greeks worked.

Some instructive membership rolls of laborers' gild at Ostia, reveal a remarkable scarcity of free native labor there in the second century of the Empire. A list[9] of ship

[7] On his Sabine farm Horace cultivated a part under the charge of a *vilicus,* but also had five renters upon parts of it, *Epist.* I, 14, 1–3.

[8] *Digest,* 14, 3 and 4 passim.

[9] *C. I. L.* XIV, 256.

carpenters contains 320 names of skilled workmen. Slaves to be sure do not figure in the list; probably they were not eligible for membership in the gild. But we cannot conclude that they were not at work in the yards. Only four men are free immigrants; such in fact are rarely found at Rome. However, few names on the list bear the good old stamp of the true Latins. Greek cognomina are very numerous; perhaps some that bore these names were Neapolitan and South Italian ship-yard men, but other indications rather favor the view that the Greek cognomina here also indicate servile parentage. The most striking fact is the great abundance of the imperial family names, borne of course by freedmen of the imperial household and their descendants. When we add to these the other names that belong to the servile class, names like Verna, Restitutus, Mansuetus, Successus, Hilarius, Fortunatus, Vitalio, Publicius, we discover that at least three-fourths of these ship-wrights were freedmen, or, at most, a generation or two from that stage. The same conclusion is reached by examining the membership lists[10] of the transport-helpers gild containing nearly four hundred names: among these are found a large number of Ostia's former public slaves designated by the name Publicius or Ostiensis.

In the great number of small shops where producing

[10] *C. I. L.* XIV, 250 and 251. This gild consisted of men who owned and ran the barges and lighters that helped load and unload large ships outside the harbor and transport the produce from the harbor to Rome. It is worthy of note that former slaves of Ostia and their sons had gained the means to engage in this business.

and retailing were not yet divorced,[11] we have already had occasion to notice the following several types of shop keepers: (1) The handicraftsman is often a free citizen who rents the shops and conducts the business on his own capital, himself working at the bench with perhaps one or more slaves. The plumbers of Rome often illustrate this type and the Pompeian ex-soldier shoemaker who conducted his shop in the porter's lodge of his former captain is a very humble type of this class. (2) A second type is found in shops where a freedman or slave by way of reward for faithful service is lent some capital at interest or on shares which together with his own peculium suffices for the conduct of such a business. Many cases discussed by the Jurists under *De Tributoria actione,* fall into this class (Digest 14, 4). This system was very extensive and doubtless many of the Pompeian shops directly connected with dwelling houses were thus conducted. (3) Again, men of some means also owned shops of various kinds which they supervised but conducted through slaves or freedmen acting as their agents, such agents generally receiving a percentage of the profits

[11] It is evident that in a few peculiar trades, "custom work" continued by the side of ordinary handicrafts shops. Gaius, for instance, cites a case where a man brings his own gold to the jeweler to have it made into specified articles (III, 147). Of course work in jewelry has always lent itself to this system, since when broken or out of fashion the material will usually be worth reworking. There is no reason to suppose, however, that there was much customwork in other lines during the Republic, though Diocletian's edict proves that in the third century when capital was disappearing the custom system reasserted itself everywhere.

as an incentive to industry. Cases of this kind, which seem also to have been very numerous, are discussed under the title *de Institoria Actione* (Dig. 14, 3), where phrases frequently occur like: "if your slave acts as institor in a taberna or at a money-changer's table."

A study[12] of all the inscriptions in which the subject is explicitly designated as a workman shows clearly that slaves and freedmen dominated in the industries in the Empire. Of 1854 occurrences of the names of workmen, 67 are slaves, 344 are designated outright as ex-slaves, 459, though free, have Greek cognomina and therefore are largely ex-slaves, 919 give an indefinite form of name from which no conclusion can be drawn. Only 65 are demonstrably free-born citizens. From this list it would seem to be a fair inference that about 15–20 per cent. were free born and 80–85 per cent. slaves and ex-slaves. Of course this does not give a wholly accurate picture of the situation in the industrial world, for the slaves naturally are less fully represented in such records than citizens. Furthermore a large part of the *liberti* did not acquire their freedom till quite old, many receiving it on the death-bed as an act of kindness from their masters. If our records gave a census of the men *while at their work* instead of inscriptions upon their tombs the list of slaves might well exceed that of the freedmen.

These conditions are so surprising that one is almost at a loss to explain what became of the poor free stock of Rome, and hazards at a solution must be offered with

[12] Kuehn's careful and very useful dissertation, *De Opificum Romanorum Condicione*, Halle, 1910.

some diffidence. In the first place Caesar and the triumvirs who had by large promises attracted much of the proletariat group into the armies of the civil wars, scattered them over the world in colonies. Those who were settled on farms in Italy, in places like Cremona, Luceria, and Beneventum, were doubtless saved for Italian society, though not for urban industry. Those sent westward to Cordova, Hispalis, Tarraco, Arles, Orange, Lyons, and other colonies of Spain and Gaul, created centers of Roman civilization from which the Empire long drew heavily for sturdy citizens. But the large numbers colonized in Greece and the East, in Philippi, Corinth, Dyme, Buthrotum, Beirut in Syria, Sinope and Heraclea on the Black Sea, and elsewhere, seem to have been quickly Hellenized. At any rate they were all drawn from the channels of commerce and industry to agriculture and a large part of them was lost to Roman culture.

It must also be pointed out that the inscriptional evidence may in part misrepresent the facts. For instance, it is possible that the easterners at Rome regarded industry more highly than the native Italian and were therefore more apt to record a lowly metier on their tombstones. Perhaps the native often preferred an honorable life of ease on the corn-doles to mingling with slaves at the work-bench. Such considerations would explain a part of the striking percentages furnished by the inscriptions. And yet the freedmen too were very quick to catch the spirit prevalent at Rome. Trimalchio after making a fortune in trade says: "manum de tabula, I retired from active business, and began to lend my money

through freedmen, then I bought estates, and built this palace." We may also assume that many of the Roman proletariat disappeared into the silent wilderness and rough mountain regions as did so many of the "poor white trash" of our South when driven out of the race for a decent livelihood by slavery. In our civil war it was this class that terrorized several states with brigandage and petty pilfering. The inquiry still leaves many questions unanswered but on one point it seems to lead back to a definite conclusion that most of Rome's industry was in servile hands.

The conditions of the slave-laborer varied widely. On large farms where a fellow-slave was manager, much depended upon his temper, but since the landlord seldom met his slaves, all the harshness of unsympathetic profit-seeking might find expression in such managers. The same was of course true in mines to which the lowest class generally drifted, and in factories we may presume that a hard régime of driving found entrance through managers bent on gaining their owner's gratitude by means of large profits. In such places there were no minimum hours of work, and the lash and chain were frequently used. Yet we must beware of filling in the picture from modern conditions of slavery where a difference of race and state of culture has aggravated the evils inherent in the system. Apart from a national pride in his race, which the Roman like any modern possessed, there is at Rome no evidence that any slave was not considered a potential citizen and thought gifted with as good blood and keen intellect as his master. The Romans had

too many business managers of superior wit, literary men, artists, doctors, architects, teachers, and secretaries, in their households to draw any false conclusions on that score. Indeed the Plautine intrigue is generally based on the assumption that when a young man is at his wit's end through a reckless faux pas he can rely upon his slave to find a way out. Cicero's solicitous and generous letters to Tiro, which if unaddressed might be mistaken for missives to some highly favored young relative, show how unrestrained the friendship might grow between master and man in the daily intercourse over books and business. The trust that men showed in their procurators, who travelled at leisure over the provinces conducting the large and confidential affairs of their masters, could not but preclude the emergence of any general scorn for the subject class; and the custom of placing and equipping slaves and freedmen in mercantile shops on a partnership basis which was so general under the ancient system of small-shop production, gave unlimited opportunities for free development to slaves and freedmen. Indeed modern slavery has nowhere offered such opportunities; they were not even found in the society of the rigid class system of modern European states where slavery was unknown.

Measured merely in economic terms, the position of the free-born laborer was more precarious than that of slaves and freedmen. He had less opportunity to reach the sympathy and support of a rich patron. He had no access to positions of trust since these fell to trusted slaves, well trained, and long known. The sinecures of well-

mannered attendance fell to those who knew the routine. The free laborer had no master from whom to get funds for shopkeeping, he did not fit in well with a troop of slaves either on the farm or in the household where discipline must be uniform. In factories, in mines, or at the docks he might find work if he asked no more than the daily cost of a slave, which seldom exceeded fifteen cents a day. A slave drudge could usually be bought for two hundred dollars[13] that is, about twenty dollars per year, capitalized and insured. His annual keep would come to twenty or thirty more, including the price of two tunics, a pair of shoes, some twelve or fifteen bushels of wheat, i. e., a soldier's ration, some table remnants in the form of oil, wine, and vegetables, and a straw cot in the slave barracks. On the assumption that his job was temporary and therefore did not incur any waste in idle seasons, the free man might ask for a trifle more than this, but only a trifle.

Unfortunately we have not many notes on actual wages. In Delos[14] during the third century B.C. the temple records indicate that unskilled workmen generally received from twenty to thirty cents per day, whether free or slaves hired out by their owners. Strange to say the best

[13] On prices of slaves, see Wallon, *Histoire de l'esclavage,* II, 159. See Cato's list of allowances, *R. R.* 56–9; Cato, however, was considered a hard master. In Cato's day the ration of oil was very small. As oil later was much cheaper the ration increased.

[14] Glotz, *Les Salaires a Délos,* Jour. des Savants, 1913, 206; cf. Guiraud, *La Main d'oeuvre industrielle dans l'ancienne Grèce;* Francotte, *L'industrie,* I, 327.

artistic work, that, for example, of architects, was not much better paid. Municipal clerks in Caesar's colony at Urso[15] in Spain received twenty cents per day; probably Horace received little more than that as a *scriba* in the quaestor's office at Rome. For Egypt during the Augustan age we have considerable information but this unfortunately is not quite applicable to the rest of the Empire, since the whole province was practically a vast governmental institution where free competition was never permitted. Under the circumstances of course wages were abnormally low, ranging generally from about five to twelve cents per day.[16] Cicero[17] once speaks of a somewhat puny slave as not worth twelve cents a day, presumably a sum quite below the normal wage of an average laborer. The soldier's pay was 225 denarii (about 15 cents per day, without food) under Caesar, but soldiers at that time expected a part of the booty or a share in some colony after the war. Diocletian's edict[18]

[15] Dessau, I. L. S. 6087, LXII. The lictors received only half that amount, viatores a third, and heralds a fourth, but these were likely to be shopkeepers who were only occasionally called upon for service.

[16] West, *The Cost of Living in Roman Egypt, Class. Phil.* 1916, 304; Westermann, *An Egyptian Farmer,* Univ. Wisc. Studies, 1919, 178.

[17] *Pro Roscio Com.* 28. It is impossible to take this as the normal wage in Cicero's day, though handbooks generally do. Cicero in fact is emphatically insisting on this slave's low value as a workman. In the parable of Our Lord, Math. 20, 2, workers in the vineyard are assumed to earn one denarius per day.

[18] Diocletian's edict, *C. I. L.* III, 19, 26. An interesting discussion of its bearing upon the question of the cost of living

issued when the Empire was a wreck tried to force down the price of labor as well as of all other commodities. Such was the Emperor's idea of controlling the high cost of living. The wages there given are in addition to "keep," such as it was. The more important items are the following:

Unskilled workman	10.8	cents.
Bricklayer	21.6	"
Carpenter	"	"
Stone Mason	"	"
Blacksmith	"	"
Shipbuilder	21–26	"
Painter	32.4	"

These wages are in addition to "food and lodging" for the workman, and although in modern estimates of a "living wage" in America these two items make up only about 35 per cent. of the "budget," in Cicero's day the bare necessities constituted at least 80 per cent. of the daily expense if the laborer was married. Diocletian's list of wages therefore is very generous in comparison with Republican prices, a fact doubtless attributable in large part to the great decrease in the number of slaves by his time. For the end of the Republic I think we may safely concluded that the wages found at Delos probably still held, and that ordinary unskilled labor might expect

may be found in Abbott, *The Common People of Ancient Rome*, p. 145. See Pauly-Wissowa, *Art. Diocl. Edict.* for bibliography. An item on the wages of a jeweler is found in the Dacian wax tablets of the second century A.D. The workman contracts to work for half a year for $6.30. This salary was doubtless in addition to board and lodging, *C. I. L.* III, 948.

about one denarius per day or about 17–20 cents measured simply in gold. This was approximately the wage generally paid Italian farm labor at the harvest season in 1870 before the entry of Victor Emmanuel.[19]

Obviously the ancient free laborer did not rear a large family and send his children to college. Could he live at all? Certainly not as well as the urban slave, for the slave was not only kept fed and clothed up to the point of efficiency and put in a position to acquire a peculium, but so too were his wife and children. Furthermore the children born in the household were apt to be trained in some skilled occupation if only with a view to more profitable service, an advantage which frequently placed them in a position in which they could profit from contact with the master. The free-born laborer must find his own lodging and if he had a family he must feed his children; his wife of course generally earned her own living. But is it likely that laboring men reared families upon such wages? If we compare the wages with the laboring man's budget of necessities, forget present day conditions and think rather of the conditions of the English laboring man before the repeal of the corn laws, the Italian workman before 1870, or the Japanese poor before the Great War, we shall find that somehow it could be done.

In reckoning the cost of living, we soon realize that "living" is a term of innumerable meanings especially in

[19] *Monographia della cittá di Roma,* III, p. cxxii. If a man hired out for a full year to ensure himself board and lodging through the winter he received only half a lira per day.

a society dominated by slavery. Cicero felt that his son while a student at Athens could not live on less than four thousand dollars a year, since as the son of an ex-consul he must keep up appearances and associate with young aristocrats like Messala and Bibulus. Cicero himself felt that the dignity of his position demanded a town house in the most aristocratic quarters—it cost about $200,000—a suburban villa, and at least one seaside retreat for vacations; sometimes he had three. Cicero of course was far from wealthy; he merely tried to live as he thought an ex-consul should. But, the workingman was not expected to include the cost of appearance and respectability in his budget. He was only expected to keep body and soul together, and the state even aided him in this. As for the rest the sun kept him warm and reduced his bill for clothing to the items demanded by a scant sense of modesty; government officials and charitable citizens gave him free baths and amused him gratis on all the holidays.

His menu called for no meat.[20] The invincible legionaries of Rome had conquered the world on a fare of

[20] The Sicilians drafted for the army in 1915 were so unaccustomed to eating the meat of the army rations that compulsion had in many cases to be applied. In 1906 I found that the regular noonday meal at an *osteria* for workmen near a Roman factory cost five cents. It consisted of a half pound of bread, a slice of cheese and a glass of wine. The daily wage was then two lire. In 1916 the wage had risen threefold and the price of the meal also. Since then wages and prices have again doubled. With a wage of twelve lire instead of two the laborer still eats the same fare, lives in the same basement, wears the same shoddy, and votes the Socialistic ticket as before.

wheat porridge, and the state in Cicero's day gave every citizen applicant at Rome a soldier's ration of a bushel of wheat per month at about one-third the market price; under the Empire, this ration became a free gift. In cities which had no corn doles, this staple cost about seventy-five cents per bushel or two and a half cents per day per person.[21] To this he generally added a bit of cheese and some vegetables, olive oil, and wine. In Diocletian's list which is higher than Republican prices, cheese costs seven cents per pound; three cabbage-heads[22] or six turnips could be got for a cent, vegetables which can be raised almost every month of the year on sunny slopes near Rome. A pint of *ordinaire*[23] cost about one cent, and that, generously mixed with water, might suffice for a day. The oil, of which a small quantity was used, sold at a trifle more. That is practically the entire bill for food. It would in fact be wholly misleading to draw up a complex schedule of prices to compare with the many items that go into making the monthly index of

[21] For prices of wheat see Rostowzew, Pauly-Wissowa, art. *Frumentum*. The prices varied normally from 40 cents to about $1.20 per bushel, fluctuating considerably because the poor farmers generally had to market their grain as soon as it was ripe. The lack of transportation in winter tended to make prices high in February and March. Polybius, II, 15, and XXXIV, 8, cites some very low prices from Spain and the Po valley before these regions had been opened up to regular commerce. Such prices should not be reckoned in making a normal average.

[22] See Diocletian's Edict, V and VI.

[23] Columella, III, 3, 10, gives 300 ses. per culleus (120 gals.) as a fair price. Martial, XII, 76, implies that an amphora (6 gal.) costs about 20 asses.

prices now issued by the Department of Labor. Eight cents per day, or six cents with a ticket of admittance to the corn doles, paid the grocer's bill.

As for clothing, one pair of shoes,[24] frequently dispensed with, cost at most half a dollar. Five pounds of wool at ten cents a pound, or less, sufficed for two tunics, which his wife wove by lamplight. To naked limbs Italy tempered the winds.

Rents at Rome in the Republic we should consider low. Caelius[25] was considered very extravagant when he was thought to have paid $1,500 per year for a house in the fashionable quarters. Cicero insisted that this rental was only $500, and that a false rumor had been spread by the owner for advertising purposes. If a man like Caelius paid $500 on the Palatine what did a basement or an attic room in the Subura bring? We have no prices for Rome, but in the heyday of prosperity at Delos[26] many shops and houses, presumably of a fair type meant for occupancy by the shopkeeping class rented at one or two dollars the month. With labor and building material as cheap as they were at Rome we have no reason to think rentals there much higher than at Delos. Till recently farm laborers of the Campagna have reckoned house-rent

[24] See Diocletian's Edict, IX, 5 a.

[25] Cic. *Pro Caelio,* 17; Plutarch, *Sulla,* 1, implies that 2000–3000 sesterces was the price of cheap apartments barely available for respectable Romans in Sulla's day.

[26] See Roussel, *Délos,* p. 149. At Pompeii a residence of fair size that had been converted into a fullery rented at seven dollars per month, *C. I. L.* IV, 1, p. 392. Later Martial and Juvenal frequently complain of the high rental of their attic apartments.

as practically nothing. They raised up *cabane* with their own hands, making them out of a few poles and some waste straw; and these suffice in that climate. Ancient workmen could do as much, or they rented a room or two in the cheaply built tenement houses, or slept in their shops or in the narrow rooms behind the shops. House-rent was a small item to men who need not consider questions of station.

The Roman workingman must also have his bath and a post-balneal chat with his friends. For this the cities or public spirited citizens usually provided numerous public houses where admission was free, more commonly one-fourth of a cent or at most a cent. This was the workingman's club house.

It appears then that the laborer, thanks to state charity and the genial climate of Italy, need not starve or freeze to death. If he kept good health and could find work, his wage would permit of marriage, for his wife could perhaps support herself by spinning, weaving, or shop-keeping; and if there were children, they too were put to work at a very early age. Nothing was left over for pleasure to be sure, but the Roman government knew the dangers of an unamused rabble, and on all the numerous holidays supplied games and amusements gratis: chariot races, theatrical performances, wild beast hunts, gladiatorial shows, processions and naval battles. The Emperors had discovered a very simple narcotic with which to sooth the crowd infected with the diseases induced by slavery and a non-productive economic system, and they administered it with constant and certain success: panem et circenses.

There was but one deep concern not provided for. Where were the surviving relatives to find as much as ten dollars with which to pay for the cremation of the body at death, the niche for the burial crock and the jug of wine for a respectable wake? To allay this terror the workmen formed burial societies which collected small monthly dues with which to meet the necessary expenses. The society also provided a respectable funeral procession from among its members.

During the Empire there were neither slave uprisings nor labor-revolutions in Italy. Apparently the laboring man was fairly happy; whether he could in such conditions also be a good citizen is quite another question.

The laborers of every craft had their collegia,[27] or labor gilds, but in the face of slave competition these could in no sense be unions organized for the purpose of bettering wages and conditions by collective bargaining. We never hear of labor strikes in Italy.[28] Obviously if a laborer refused to work on the terms offered him a slave would be put in his place. It may be that the early gilds, assigned by tradition to the regal period, had grown out of direct economic needs. Industry probably had a healthier life at that time when commerce was more active and slavery had not yet permeated the city. The political strikes of the early Republic, the secessions to

[27] Waltzing, *Les Corporations;* Ruggiero, Diz. Epig. *Art. Collegium,* by Waltzing; Kornemann, *Art. Collegium* in Pauly-Wissowa; Abbott, *The Common People of Ancient Rome,* p. 209.

[28] Strikes sometimes occurred in Eastern cities where free labor was not entirely at the mercy of slave economy; see Ruggiero, *loc. cit.* p. 358.

the Sacred Mount, may then have copied labor methods or may have found their strength in such labor gilds. But of such things tradition says nothing. In the late Empire again when the state was organizing the gilds for public purposes, granting certain immunities in return for services in grain transportation, fire protection, and other quasi-public duties, the gilds often exerted pressure upon the state through their patrons in order to obtain further privileges and exemptions. So, for instance the bargemen[29] of the Tiber secured some kind of monopoly with the help of a powerful friend, and the fullers of Rome brought suit to have their former water rights restored them. But such instances are proofs of new tendencies and do not indicate the purposes of earlier gilds. During the Republic the chief object of these many organizations seems to have been social, to use a very broad term. As is usual where shops are small and carry a very limited stock, shoppers go from one to the other to bargain. Consequently makers of the same article aggregate to the same section of the city.[30] The result is that the community of interest naturally arising from practicing the same metier is strengthened by personal acquaintance and an interest in the same locality. Thus a natural social group already exists for the formation of a burial-aid society, for some community of worship, and for social

[29] Ruggiero, *loc. cit.*

[30] Besides the many special fora we know numerous streets called by some special craft at Rome, e.g. vicus frumentarius, v. lorarius, v. materiarius, v. pulverarius, v. sandaliarius, v. unguentarius, porticus margaritaria. Jewellers usually gathered on the Via Sacra, potters on the Esquiline, tanners in the Trastevere, etc.

gatherings over wine and "shop-talk." By inscribing on stone their membership list together with all the dignified titles of petty offices they created a world of seeming importance where for a while they could forget the low esteem in which the outside world seemed to view them.[31] The real binding cord that held them together was of course the very practical service of the society in collecting the petty dues and procuring the columbarium for the burial urns. The division of costs thus reduced the dread expense of dying and the fear of roaming as unburied ghosts, and the poor man could then contemplate the inevitable with some complacence. Nor were the social gatherings wholly for purposes of pleasure: the libations provided for the cult of the spirit of departed members and patrons in reason of which the members often called each other *comestores* and *convictores*. The following lines taken from the "regulations and by-laws"

[31] Some of the gilds seem like the medieval gilds to have made a permanent place for themselves in annual religious festivals. (The *Shipwrites* at York gave "Building of the Ark," the *Goldsmyths* gave the "Magi" and the *Fysshers and Marynars* produced "Noah and the Flood.) So the Roman carpenters were apparently called upon to furnish the pine used in the celebration of Magna Mater and to carry it in the procession. They accordingly assumed from that time on the name of *dendrophori*. Shipwrights and sailors had regular parts to perform in the festival of Isis. In Cicero's day the officers of the gilds displaced the local officers in the direction of the street celebrations of the Compitalia. Indeed evidence may some day come to light proving a direct connection between the medieval "mystery plays" performed by gilds and the ancient "mysteries" in which labor gilds also had a share.

of such an organization will afford some insight into their little world.[32]

"It is unanimously voted that whoever wishes to enter this society shall pay an initiation fee of one hundred sesterces (about three dollars at this time) and an amphora of wine, and shall pay a monthly due of five asses (three cents)."

"If a member in full standing dies there shall be drawn for his account three hundred sesterces, one sixth of which shall be divided among the attendants of the funeral. The funeral procession shall go on foot."

"Any member who commits suicide shall not be buried by the society."

"If any member who is a slave shall become free he shall provide the society with an amphora of good wine."

"If an officer elected in due order does not give a dinner to the members he shall be fined one dollar." "The officers are each to furnish an amphora of good wine, two cents' worth of bread for each member, four sardines, and provide for the service."

"If any member causes a disturbance by changing his seat he shall be fined twelve cents; if anyone insults another member the fine shall be 36 cents; if he abuses the presiding officer the fine shall be 60 cents."

[32] The *leges* of the *Collegium Dianae et Antinoi, C. I. L.* XIV, 2112, Dessau, *I. L. S.* 7212.

CHAPTER XVI

The Exhaustion of the Soil

So long as Rome's capitalistic profits in the provinces were sufficient to pay the bills, there were few Romans who criticized the system whereby provincial industries and commerce were compelled to do the world's work. Only here and there men like the Gracchi and Caesar arose who suspected that to the producing population had after all fallen the more fortunate lot, and that Italy by the easy exchange was in danger of losing her strength through an atrophy of her power to produce. The Gracchi, proud of their native Italic stock almost to the point of race prejudice, bent their energies to save Italy; Caesar, though believing thoroughly in the Italian race, set his heart rather upon the greater task of Italianizing the whole empire. Either policy if pursued consistently and intelligently for a long period might possibly have saved Roman civilization. It was the constant shifting from one policy to the other, and the frequent acquiescence in laissez-faire that abandoned Italy to parasitic futility, ground the East under too great a burden of work, and forced the West finally to find salvation in her own policies.

The collapse of the Italian peasantry however was not sudden, thanks to many efforts at recolonization, and to the versatility of the native stock in meeting new discouragements with new devices. "Land exhaustion" is

always a relative term. Italy[1] is still producing an annual average of twelve bushels of wheat on thirteen million acres, i. e., upon about one fifth of her rock ribbed land, and that largely with methods which differ but little from those employed by Varro.

It is difficult to restore from our fragmentary sources the story of the many vicissitudes of Italian agriculture, but a survey of the agricultural history of any modern country will disclose what kinds of revolution the farm population must live through after the first wealth of the soil is drained. In fourteenth-century England,[2] for in-

[1] The Italian census of 1905 gives the following statistics: Wheat 12½ million acres (18% of whole); average 12 bu. per acre. Maize 4 million acres (6% of whole); average 25 bu. per acre. Wine 10 million acres (14% of whole); average 100 gal. per acre. Olive oil 2½ million acres (3½% of whole); average 30 gal. per acre.

Oranges and lemons that today occupy much space were not known in ancient Italy. Chemical fertilizers were still but little used in Italy in 1905.

[2] See Prothero, *English Farming past and present*, 1912. The student of ancient economic conditions will profit especially from a study of England's long agricultural history. He will there learn what are the normal vicissitudes that soil culture must perforce pass through. All the Roman provinces flourished for a season by the introduction of Roman methods of farming which being thorough tapped new resources. Consequent exhaustion was inevitable, but the following period was generally devoted to pasturage which, though somewhat less profitable, gave the land a rest for a new period of prosperity. The temporary abandonment of wheat culture in each case was not a proof of reckless exploitation by the sovereign state as is too often assumed. The owners of land cultivate the most profitable crops possible at all times whether or no a tithe is imposed.

stance, the soil was thought exhausted, and was turned into grazing lands. Food began to be imported. After two centuries devoted mainly to wool-growing, a new mercantilistic doctrine advocating a balance of trade induced the government to offer bounties for grain production, and the land when broken was found to have recovered its fertility. A half century later returning signs of exhaustion were met by more intensive cultivation and more scientific rotation of crops, based largely upon the precepts of Cato and Columella. After the wars of the French Revolution, when low peace-prices returned, a protective tariff still saved agriculture for a season until the reform bills and the inpouring of American grain ended the struggle, and sheep and woods returned. The land rested once more so that it was again ready to provide good crops when the blockade of the Great War made an urgent demand for home-grown food.

The vicissitudes of ancient agriculture were not wholly dissimilar. There is little reason to think that the Italian soil would have failed to supply legitimate demands from it had the versatile native stock been aided over crises by an occasional protective tariff, by a thriving industry which might have occupied idle hands when the soil needed a season's rest, and particularly by protection from the blight of slavery.

The Gracchi had done much to restore small-plot farming by their wide distribution of thirty-acre lots throughout Italy. Indeed the text of the famous agrarian law[8] which was passed ten years after the death of Gaius

[8] See especially Hardy, *Six Roman Laws*, pp. 35–90.

seems to imply that in 111 B.C. practically all illegally held public land had been distributed. Before Gracchus died his law was so amended as to permit the sale of the plots, an amendment which was found necessary in order to make the allotments sufficiently attractive. Indeed it is probable that the clause stipulating inalienability had been intended to be temporary, effective only long enough to compel the holder to make an earnest endeavor at farming. Even our homestead laws required a few years of occupation and a definite amount of cultivation before a real title to the land was granted. The law of 111 B.C. granting full ownership without payment of rental to the state was intended to afford relief to many settlers who had failed in their undertaking. But even with its aid many of the small farmers did not succeed, and sold their plots to more enterprising neighbors. Thus the old drift towards the plantation system again set in.

The causes of failure were many. The allotments were frequently in strips cut here and there from large holdings, their recipients could therefore not be grouped into villages as the sociable Italians always preferred to be, and they soon succumbed to the loneliness of isolated farm life and returned to the city. Many furthermore had come from the city of Rome knowing nothing of the technique of their new occupation, and failed through sheer ignorance. Then too the distance from a good market in the case of many allotments in the interior made intensive farming of small products unprofitable: cattle can be marketed on the hoof far from the pasture, wine and oil are concentrated products that may be

hauled long distances to advantage, but grain is relatively bulky and vegetables demand quick service. Such were the reasons why the slave-owning landlord of wide fields regained possession of many of the acres that the Gracchi had taken from him. It is significant that a large part of the Cimbric invaders captured by Marius and Catulus twenty years after Gaius' death were purchased by cattle-men in Southern Italy in the very region that the Gracchan commissioners had allotted to small farmers. They presently made up the army of slaves with which Spartacus threatened the very life of Rome.[4]

Meanwhile Sulla did something, though unwittingly, to increase the number of small holdings when he confiscated the lands in cities disloyal to him and distributed them as rewards to his soldiers.[5] At least a hundred thousand soldiers were thus settled, chiefly in Etruria and Campania, in both of which regions large estates had been numerous. Naturally his method was not wholly conducive to the best interests of the countryside. Many good tillers were dispossessed, while not a few of the new settlers were unfit as peasants. Indeed Catiline's rebel army formed its nucleus in Etruria out of the two groups, peasants dispossessed by Sulla, and Sullan colonists who failed to succeed as farmers. However there can be little doubt that his colonization decidedly diminished the area of the large plantations. Caesar continued this process, though his chief desire in colonizing was to spread Latinity in the provinces, a policy which quickly

[4] Caesar, *Bell. Gall.* I, 40; Plutarch, *Crassus*, 12.

[5] Kromayer, *Neue Jahrb.* 1914, p. 161.

bore fruit in Gaul and Spain. The triumvirs perhaps wrought more damage than benefit to small-plot farming, for while they settled as large a number of veterans as Sulla had their confiscations were to a great extent carried out in the Po valley where agricultural conditions had been unusually healthy. Later, however, Augustus[6] when he had soldiers to demobilize and settle made a practice of buying land that was for sale, and then the results could hardly have been undesirable.

This vast recolonization of Italy which during half a century placed small lots in the hands of some three hundred thousand new settlers changed agricultural conditions greatly. It not only displaced very many slaves by working landowners, but it also displaced thousands of the old native freeholders by veterans who, as the armies were constituted after Marius' day, were apt to be urban proletariat largely sprung from freedman stock. It is doubtful whether Italian agriculture profited much by the change.

Meanwhile two tendencies towards a healthier situation in Italy became noticeable in Cicero's day, one towards a partial displacement of slaves by renters, a second towards a renewed intensive culture of the land. The experience of Italian plantations and ranches with the Cimbric captives may account in part for the first. Not only had the number of available farm-slaves been diminished by the annihilation of the revolters, but the loss sus-

[6] Augustus, *Res Gestae Divi Augusti*, ch. 16. He bought land in Italy for 600,000,000 HS, in the provinces for 260,000,000 HS, according to his own account.

tained and the danger entailed had served as a warning that immediate profits from slave-cultivation might be more than overbalanced in the long run. Caesar indeed passed a law stipulating that at least a third of the farm and ranch labor must be free, a measure that merely phrased a tendency already accepted. Everywhere landlords were endeavoring to find free men to take plots of their land as tenants[7] and the process had gone so far by Augustus' day that the word *colonus* which had originally meant "tiller of the soil" had by then reached the new but generally accepted meaning of "tenant."

The second tendency, towards a renewed cultivation of the Italian soil, reminds us of the frequent rehabilitation of farming in England referred to above. The contributing causes are not far to seek. Sicily, which had long served as Rome's producer of wheat, had overworked its soil on wheat culture. No soil will endure the constant drain of a single crop for two centuries without demanding a respite. During the civil wars even the amount produced was frequently cut off from Italy and it is very likely that Italian farmers then discovered that wheat could again be raised profitably near Rome, that in fact the land had recovered sufficiently under pasturage to endure a renewed season of cultivation. What contrib-

[7] Instances are found in Caes. *Bell. Civ.* I, 34; II, 56; Colum. I, 7, 4–6; Hor. *Epist.* 1, 14; Seneca, *Epist.* 123, 2. By the second century coloni rather than slaves seem to be assumed upon farms, Digest, XX, 1, 32. Varro, to be sure, regularly implies that slaves do the farm work, and for his day his testimony should be accepted as valid, at least for Latium; see Gummerus, *Klio, Beiheft,* V, p. 64.

uted to the movement moreover was the recolonization of large areas by Caesar and Augustus and the desire of landlords to exchange free tenants for slaves as far as might be. Causes and effects thus interacted. Poor free farmers could best work at grain raising, the land could again bear cereals, and Italy needed cereals produced at home.

Such changes however come slowly, and in this case the new culture was destined not to last long. Indeed the reopening of the seas, the annexation of Egypt, and the development of African grain-lands presently checked the progress of Italian agriculture. However, for a generation at least in the last years of the Republic and during the early reign of Augustus, the western littoral of Italy seems to have enjoyed a very profitable period when pasturage gave way to a combination of vine, fruit, vegetable and grain culture that made the region a garden such as the traveller now sees only in Campania.

It would of course be wholly erroneous to conclude that the confiscations and redistributions of land and the new distrust of slave culture banished vast estates from Italy. Such an inference is at once proved impossible by numerous references to men like Domitius who at the battle of Corfinium could promise his army of fifteen thousand men a gift of four jugera each out of his own estates, and who afterwards manned a fleet with his own tenants and slaves. Too frequently the confiscated plantations simply passed by forced sale to some adherent of the victorious party; and economic laws that encouraged concentration were never in abeyance. In favorable cir-

cumstances however, and Roman inheritance laws were always favorable to them, groups of small farmers succeeded fairly well in maintaining their position. Of this we have proof in two exceedingly interesting inscribed stones,[8] one found near Placentia in the Po valley, the other near Beneventum. They are both records of the mortgages secured by farmers from the great imperial fund by which Nerva and Trajan proposed to aid farmers with grants of "rural credits" and at the same time to "pension motherhood" by supporting the children of the poor on the interest derived from the mortgages. Since the farms bear the names by which they were first recorded in the census bureau, probably about a century and a half before, and their ownership at the time of the mortgage-record is also given, it is possible to tell in both places how far the process of concentration had gone. At Beneventum it appears that the plots originally held by ninety-two owners had by Trajan's day come into the hands of fifty owners, and at Placentia the original number of eighty-nine owners had fallen to fifty. That is not an unreasonably rapid concentration measured by American experiences. Many of the plots were still quite small, being worth only a few hundred dollars each. Very few indeed were large enough to deserve the name

[8] The so-called tabulae alimentariae, *C. I. L.* IX, 1455, and XI, 1147, discussed by Mommsen, Hermes, 1884, p. 343. Perhaps Mommsen is too confident of their representative character. It is just possible that the funds spoken of were lent only to the owners of small plots, since Dio (68, 2, 1) vouches for the Emperor's interest in aiding this class. If this be the case the inscriptions do not give an adequate idea of the larger estates.

of latifundium: only five of the hundred being valued at more than $20,000. But circumstances in both these cases seem to have been favorable to the small farmer, in as much as the lands were suitable for grain culture and situated near good markets. If we could recover a considerable number of these illuminating documents—and hundreds of them must have been inscribed throughout Italy—we should be able to decide whether these two give a fair picture of Italian farm-conditions.

To follow the evolution of Roman agriculture through the succeeding crises we must turn to the official documents[9] that have been found in the province of Africa not far from Carthage. It will be remembered that after the Third Punic War Rome assumed possession of the Carthaginian estates, leaving a large part of the Berber peasants in the position of tenants, as they had been in the régime of Carthage. Hard pressed for ready cash, however, Rome sold large tracts outright, apparently to senators and knights who possessed the capital requisite for conducting the expensive irrigated plantations which alone could survive in Africa. The younger Gracchus presently gave about a million acres to colonists in large plots of two hundred jugera in recognition of the farming methods required there.

[9] These are imperial rescripts engraved on stone containing the Emperors' responses to petitions from their tenants in Africa. Six have so far been recovered in fragmentary state here and there in or near the Bagradas River. See Bruns, *Fontes*[7], pp. 295–304, Dessau, *Inscr. Lat. Sel.* II, 6870, and Rostowzew, *Gesch. d. Röm. Kolon.* p. 313 ff. for texts, references and the most important discussions.

After a century of Roman occupation the province began to blossom into well-nigh incredible fertility.[10] On his nine days' march from Lares to Capsa, Marius, as Sallust informs us, had found little but *vasta inculta, egentia aquae, infesta serpentibus.* To-day it may be described in the same words, but by Trajan's time large cities had sprung up everywhere. The extensive ruins of the cities of that region recently excavated by French explorers give grounds for an estimate of their populations. Bourde assigns at least 100,000 souls to Thysdrus, 50,000 to Thelepte, 25,000 to Sufetula and 12,000 to Cillium, without including the thickly settled peasantry which made these cities possible. The miracle was performed by devising an elaborate system of dams and underground cisterns that gathered and saved every possible drop of rain, and by planting extensive olive and fig orchards and vineyards to use and conserve this moisture and attract more rain. As a result even the culture of cereals finally became profitable in land that is now considered a part of the Sahara Desert.

The documents already referred to reveal the interesting fact that the great Roman planters who accomplished this work employed not slave labor but free tenants. There can be little doubt that they invested heavily in the lease-holds of the native Berbers whom they gladly employed as tenants. These natives, present in great abundance, were of course, acclimated as Northern war captives or Eastern slaves would not have been. But the

[10] Reid, *The Municipalities of the Roman Empire,* chap. X, especially p. 289.

documents cited above also prove that many Roman peasants had come to Africa to work as tenants upon these lands. Here we doubtless have a reference to some of the unfortunate Italians who had been dispossessed by the confiscations of the Civil Wars at home and whose lot Vergil so poignantly pictures in his first eclogue:

> At nos hinc alii sitientis ibimus Afros
> Pars Scythiam et rapidum Cretae veniemus Oaxen.
> . . . En quo discordia cives
> Produxit miseros!

There is some satisfaction in the thought that these exiles found prosperity in the new land, a wealth of wine, oil and grain that presently so overwhelmed the Roman market with African shipments that their successors in Italy, colonized by the victors, found themselves hardly able to continue the competition. By the Claudian period Italian farmers were again raising signals of distress.

The continuing story of African agriculture is fascinating but we can here only mention the factors that combined to bring on the inevitable day of serfdom. The great landlords, who lived at Rome and managed their estates through procurators, built central villas upon their properties and conducted them on a system not unlike that of the English manors. The tenants were assigned farms from which they paid a third of the produce, plus some six days' service[11] a year on the manorial lands,

[11] This exaction of personal service was probably a practice borrowed from Carthaginian serfdom; but it could well be excused as a substitute for the municipal road- and munition-service which citizens of most colonies had to perform and from which these tenants were exempt.

which accordingly were tilled for the owner without cost. This device of securing service had probably survived from the Carthaginian régime; it certainly bears the appearance of those oriental feudal practices then still in vogue in Egypt. Later the system proved to be the entering wedge of a new feudalism when state paternalism became more interested in producing wealth from the soil than in protecting the toiler. Meanwhile the tenant was also encouraged to plant unoccupied desert land with olives and vines, being granted from five to ten years' rent-exemptions for such efforts; and thus the area of tillage grew and the plantations of the manors extended. Then came the hard days of Nero's reign with their cruel proscriptions and confiscations[12] of large estates, and half of the private plantations of Africa were brought into the imperial domain. Vespasian, the shrewd financier, sent his procurators to organize the public lands and the recently confiscated estates into vast imperial complexes, laying down a definite regulation according to which his agents and the tenants—now imperial coloni—should manage the properties. Domitian, possessed by the idea of protecting Italian agriculture, then in deep distress, temporarily checked the extension of African vineyards and olive groves, thus depriving the tenants of a source of profit even at the expense of the imperial domains, but his successors, Trajan and Hadrian, reverted to the more normal Roman policy which had generally refused to

[12] Schulten, in *Klio*, VII, p. 208, points out that several African estates mentioned in the inscriptions bear the names of distinguished nobles proscribed by Nero.

favor Italy at the expense of the provinces. A petition of the tenants in Africa asking for permission to plant new lands was granted, a sufficient proof that African agriculture was still in a healthy condition. But presently we find signs of distress even in Africa. The trouble was chiefly that the wealth of the soil that had accumulated for ages on the surface and had been so successfully tapped by the new methods of Roman farmers began to show signs of exhaustion. Beneath that thin surface there was only sand; here the remedies of rest, pasturage, and rotation of crops applied in Italy at every crisis seemed to promise little success. When the African rents due the imperial treasury began to diminish, the emperors and their agents grew anxious, at first inviting the tenants with tax exemptions, hereditary leases and outright gifts of land to break and plant the soil further into the deserts. But there was a limit beyond which the farmer could not go. Next we hear of complaints and threats from the tenants that since the imperial agents were doubling the periods of their forced services upon imperial domains they would be forced to abandon their lease-holds altogether. Finally there came the inevitable decree from the desperate emperor which forbade the tenants to leave their lands, and attached them for life and their descendants forever after to their allotments.

The documents relating to Italian agriculture are not so illuminating, but the story was doubtless similar, and similar largely because the Oriental practices of feudalism that lived on in Egypt and Africa from a former régime seemed to offer the emperor justification for an

easy solution of the difficult situation in Italy. There too Nero's confiscations had accumulated large plantations for the imperial treasury. Perhaps it was with these in view that Domitian undertook to protect Italian farm profits by restricting the provincial production of wine and oil, an idea that was too insular to meet the approval of the province-born emperors who succeeded him. But the population of Italy was visibly dwindling: the stock that now peopled it had neither bodily vigor nor mental energy and there were no industries at home to support the people while the land might again have a respite as pasture. Nerva and Trajan as we have seen tried to extend rural credits at six per cent. and to use the proceeds in giving pensions to parents for each child. It has been estimated that a hundred million dollars were taken from the treasury for these funds alone, and in many panegyrics the well-meaning emperors were lauded for having "recreated Italy." Then the plague swept the land and carried off millions of people. Marcus Aurelius had recourse to the daring expedient of importing thousands of Northern war-captives as half-citizen tenants of the imperial domains, but they far from filled the void, and it is doubtful whether they made efficient farmers. The years of anarchy, war, and extravagance that followed emptied the treasury, and brought on the successive debasements of coinage, which eventually reduced the denarius nearly to one per cent. of its former value. Not the least disaster wrought by this process was the practical annihilation of the great fund for rural credits instituted by Nerva and Trajan. All credits were now indeed little

more than figures on paper, hardly worth the effort of collection.[13] Taxes were confiscatory, and such small farmers as still owned freeholds "commended" themselves and their properties to influential lords who had the power with the emperor to protect their coloni. Tenants of lords who failed to secure relief tried to escape from their contracts. Owners of farm slaves attempted to rid themselves of a property so easily taxed. Such were conditions when Constantine intervened with his decree binding freeholders, tenants and slaves alike to the soil and thus legalized the serfdom which was everywhere being adopted.

[13] Economists usually assume that the later emperors withdrew the funds, but of this there is no evidence and withdrawal would have been difficult since the funds had been distributed to the various municipal boards. The complete disappearance of the funds is most readily explained by the dwindling of all trust fund credits through the astonishing debasement of the denarius. When a credit of a hundred million dollars had sunk to the value of one and one half million dollars it was obviously impossible to continue the credits and pensions throughout Italy.

TABLE OF WEIGHTS AND MEASURES, UNITED STATES

SURFACE

Pes (foot) = 16 digiti = .296 meter = about 11 inches
Mille passuum (mile) = 1480 meters = abt. 4856 feet
Jugerum = .252 hectare = abt. .62 acre

MEASURES

Amphora = 8 congii = 48 sextarii = 26.2 liters = abt. 3⅓ pecks
Modius (⅓ amphora) = 8.73 " = abt. 1.1 pecks

WEIGHTS

Libra (pound) = 12 unciae = 327.4 grams = abt. 9/10 pound troy
Oscan pound = 273. grams

Coins at End of Republic

Denarius (3.8 + grams, silver) = 4 sestertii = 16 asses

269–217 B.C.

Denarius = 2½ sestertii = 10 asses
The Attic (silver) Drachma was a trifle heavier than the Roman Denarius, but often passed current at par.

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